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**"DRIVE THE DBX LIKE ONE OF THE SPORTS CARS THAT SHARES  
ITS FRONT-END STYLING AND IT RESPONDS BY GOADING YOU INTO  
USING MORE AND MORE OF THE AVAILABLE GRIP."**

—Tony Quiroga, *"Iceberg, Right Ahead!"*



Trucks haven't changed much in the past one hundred and twenty years. Sure, they come wrapped in an assortment of rugged-looking sheet metal and stuffed full of features to keep your mind off the harsh ride, but if you were to strip all of that away, you would be left with the same basic structure. So, when **Honda** decided to build a truck for the 21st century, we used a lightweight unibody frame instead of the harsh-riding body-on-frame design needed only for heavy-duty towing. We also scrapped the live rear axle—a design that's been around since horses actually powered your ride. This makes the Ridgeline the only truck in the segment that **powers** over rough and uneven terrain with an independent rear suspension, which reduces how much the occupants inside get bounced around by allowing both sides of the suspension to operate on their own. Both of these features give the Ridgeline **a** composed driving experience no other truck can come close to. After all, who said rugged had to be rough?



We then took another giant leap away from truck tradition with the development of our intelligent Variable Torque Management™ (i-VTM4®) all-wheel-drive system. You read that right: The Ridgeline is the only truck with standard all-wheel drive rather than four-wheel drive. We didn't do this for the sake of simply being **different**. We wanted drivers to trust that each tire was performing exactly how it should be, given the **kind** of terrain it was driving over at all times. So instead of pulling a lever or pressing a button to engage all four tires, we designed the i-VTM4 with a system of wet clutches that constantly split torque between the wheels, sending up to seventy percent of the engine's power to the rear axle and then sending up to one hundred percent **of** that power to the left or right wheel, so it's available where it can be used best—instantly and seamlessly. All this makes the Ridgeline the greatest advancement in truck design since it all began, and it shows in every mile of every **journey**. This is how Honda does rugged.





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# Backfires

*The joyful noise of the commentariat, rebutted sporadically by Ed.*

## WICKED GAMES

I loved your December 2020 cover. Brings to mind artist Ralph Steadman's wild sketches done for Hunter S. Thompson's books. If you've never had a lysergic acid trip, just look at Steadman's offerings and you'll have one.

—Scott Randle

San Luis Obispo, CA

I was delighted to see a station wagon on the cover. On behalf of those who prefer wagons—all 47 of us—thanks!

—Brad Hunt

Albion, NY

Clever title: "Evil, Genius." But perhaps you should have featured a Hellcat or a Demon.

—Todd Eddy

Paxton, MA

## BOSS WAGON REDUX

I was happy to see Audi's blazingly fast station wagon ["The Devil in Disguise," December 2020]. Your comment that the company would increase production "if it could find a bigger

crowd of buyers willing and able to trade tall stacks of hundred-dollar bills for a rally family sport wagon" is wishful thinking. I base my opinion partly on my wife's reaction to my suggestion that a BMW wagon might be more practical for her than a sedan. The subject never came up again.

—Les Shumake

Olive Branch, MS

My only disappointment with your review of the Audi RS6 Avant: not one mention of the old Boss Wagon series of articles. If any production station wagon has ever earned that title, it is the RS6. Are the majority of your readers too young to remember the concept?

—Mike Bennett

Novi, MI

**We're still in mourning. The last Boss Wagon, a 2008 Mazda 5 with a Mazdaspeed 3 engine swap, blew up so spectacularly that deputy testing director K.C. Colwell cries over it to this day—Ed.**

The 2021 Audi RS6 Avant costs \$61,639 more than I paid for a new 2018 Volvo V90 Cross Country T6. Say it ain't so. The Audi can't be that much better. Although I did see an older Audi Avant spin through the neighborhood. It was slammed to the ground, riding on 20-inchers, topped with a pair of Yakima boxes, and sprouting a pair of bikes on the back. Oh yes, the windows were open and the stereo was blasting. Not my idea of a station wagon, but it's nice to see they are appreciated by youth, too.

—Rick Pariani

Jacksonville, FL

Why is *Car and Driver* reporting a 60-mph time of 3.1 seconds for the Audi RS6 Avant when other publications are reporting a full half-second slower?

—Josh Eldridge

Thousand Oaks, CA

**We actually test cars and don't just parrot manufacturer claims—Ed.**





## Backfires

If you like the snark in Backfires, you're probably ready for our Window Shopping videos on YouTube.



YouTube.com/user/CarandDriver

### JURASSIC PARKING

I assume it's lost on few that Ram chose to name its new king-of-the-hill truck the TRX because that collection of letters is pronounced *T. rex*, which was a larger, faster, fiercer, and more voracious beast than a raptor ["Mark of the Beast," December 2020]. I'm reminded of yesteryear's ads about how even the Boss must answer to the Judge. Nice to know there's still clever marketing minds over at Fiat Chrysler.

—Derrick Wilburn

Colorado Springs, CO

**Maybe, but they also came up with Stellantis—Ed.**

The Ram 1500 TRX is insane: 702 horses, 9 mpg,

6866 pounds, 81 inches tall, and 233 inches long. Absolutely nuts!

—Tom Wiatt

Austin, TX

I don't understand how you can compare a pickup truck that's barely available at dealers (Ram TRX) with one that's out of production (second-gen Ford Raptor). Seems like you just needed an excuse to drive the TRX. It's sloppy journalism and unbefitting of *Car and Driver*.

—Justin Wojas

Troy, MI

**When the next-generation Raptor arrives, we'll redo the comparison test.**

**Feel better, Wojas?—Ed.**

### EXPLAINED

**My new Porsche Cayman is the first car I've owned with an electronic parking brake. What will happen if I pull it on the highway?**

—Chester Flowers, Jupiter, FL

Don't be afraid to try it. It'll be nothing like that time in high school when your buddy flat-spotted your Ford Festiva's rears on I-75. If you keep the switch held, the Cayman will merely come to a controlled stop. When the car is moving, the electronic parking brake works like a brake-by-wire system, requesting that the ABS/stability-control module send a moderate amount of pressure to all four brakes. For example, holding the electronic parking brake in a BMW 530e resulted in an attention-grabbing, but not scary, 362-foot stop from 70 mph. That's a little less than half the 530e's braking potential, as a panic stop from 70 mph takes only 154 feet. Actuate it when your Cayman isn't moving and the parking brake will operate in its usual way, engaging the brake shoes tucked inside the rear rotors to hold the car in place. —K.C. Colwell

2021 BMW 530e, 70-0-MPH BRAKING

**Using the Electronic Parking Brake**

**362 ft**

**Using the Brake Pedal**

**154 ft**

You state that the TRX is the quickest production pickup ever, when in fact it's the Holden Maloo, with a top speed of almost 170 mph.

—Lindsay Cathcart

Sunriver, OR

**Quickest refers to acceleration, and fastest refers to top speed—Ed.**

As a former Pontiac engine-cooling engineer, I noticed the precise 8382-pound tow rating for the Ram TRX. Most tow ratings are in 500-pound (or more) increments. Will adventurous TRX owners grenade their Hellcat V-8 if they tow 8383 pounds?

—Gregory E. Peterson

Sylvan Lake, MI

**Since you're an engineer, you're also aware of safety factors built into any rating—Ed.**

### WANDERERS

When I was at the *Los Angeles Reader*, I had an idea to have a writer join me for 24 hours of L.A. cruising ["Paradise Found," December 2020]. I tapped Richard Meltzer, one of the founders of *Crawdaddy* mag, because he knew the city and had a unique take on the world. We rented a car and spent hours driving one freeway after another, making large looping circles of the city. We stumbled onto a night shoot of 48 Hrs. and watched the filming of a fight scene in an alley. We ended up parking near the Palisades, getting out, and walking to the

edge. I looked out over the ocean, and then I threw up.

—Randy Michael Signor

Seattle, WA

### GETTING GRILLED

I have to hand it to BMW: It managed to move butt-ugly from the back of the car to the front ["About-Face," December 2020]. Very impressive.

—Randy Kiriara

Minneapolis, MN

It is clear the designers of the new M440i are too young to remember the Edsel.

—Jeff Kehler

Columbia, SC

**It's also possible they just don't care—Ed.**

While the new BMW 4-series is a sight to behold, what with its kidney failure and all that, one need only remember the ill-fated BMW 2000CS from the '60s. BMW recognized its design error and changed the front end, and the beautiful 2800CS emerged. From ugly duckling to beautiful swan! I hope BMW repeats the past. I would like to buy one then.

—Norman Bos

Star Valley Ranch, WY

Where would you place the front license plate? On the 4-series' buckteeth?

—Al Geiser

Port Orford, OR

Enough of your complaints about the 4-series' grille already, although I agree that it is quite striking. It is smaller





# LANGUAGE BARRIER

than its competitors'—Audi, Lexus, and all the rest have much larger grilles. So please knock it off.

—Archie S.  
Macomb, IL

## WHEN IN ROMA

Wow, 84 pages in the December issue and you can literally count the number of "car" articles on one hand. If not for the brief article on the Ferrari Roma ["Forward Look"], this would be a total waste of ink.

—Ken Ibold  
Jacksonville, FL

**Either you can't count or you're polydactylous—Ed.**

## BUY IT NOW

I'm very pleased that Ezra Dyer was enamored by his friend's choice of a 2006 Silverado ["The Enablers," December 2020]. I absolutely love mine. I plan on driving it until world's end.

—Dana Cowell  
Westover, WV

## CARROT AND STICK

I enjoyed Elana Scherr's column about *The Stainless Steel Carrot* ["Dirt Tracks to Story," December 2020]. The line about how John Morton doesn't fear death but wants his loved ones to be careful really hit home. (I should have been a race-car driver, right?) I figured I would buy the book if it were under \$40, but it's at least \$300! Is there any way to (temporarily) get one's hands on a copy for less than what a couple of halfway-decent tires cost?

—Dave Mack  
Carbondale, IL

A writer writing about a writer? Who cares? And why did you publish Dyer's column? Why did I read it? Tell your columnists to write about cars.

—George Craft  
Boulder, CO

**H**ere is the number of self-driving cars for sale today: zero. And here is the number of privately owned self-driving cars that will be on the road if Tesla meets its goal to make its Full Self-Driving Capability operational sometime this year: still zero.

Don't get sucked into arguments with Tesla fans. They're already online explaining why Tesla's model—real-world drivers teaching computer algorithms to do a job that Tesla's marketing department says the car is doing—is the same as self-driving tech. It is not. Self-driving means the car can make every decision a human can. When a car is in self-driving mode, the driver should be able to climb into the back seat and take a nice long nap. Anything less than that is driver assistance.

That's why Waymo, the Google offshoot that handles the company's self-driving operations, announced earlier this year that it's abandoning use of the term "self-driving" and will instead say "fully autonomous driving."

"It may seem like a small change, but it's an important one, because precision in language matters and could save lives," Waymo said when announcing the move. The company wants to differentiate its technology from the driver-assist systems that other automakers are developing and mislabeling. If a car needs a licensed driver behind the wheel, that doesn't count as self-driving, Waymo argued. Without mentioning Tesla by name, Waymo was definitely taking a shot at a Silicon Valley rival for which "full self-driving" is always just a day (or a tweet) away.

In 2019, we leased a Model 3 with Tesla's Full Self-Driving Capability package in large part to test this technology when it's released to the public. The \$6000 option (now \$10,000) was supposed to go live in 2020, but it didn't. We've played with the Model 3's fart sounds, had it towed to a service center on Christmas, and run it through as many tests as we could dream up, but much to the dismay of our finance folks, we are still waiting for what Tesla calls full self-driving.

When—or if—the tech does arrive, you may see us refer to Tesla's Full Self-Driving Capability feature, but as long as it requires a driver at the wheel, we won't describe it as self-driving technology.

**SHARON SILKE CARTY**  
EDITOR-IN-CHIEF







## Backfires

# CAR AND DRIVER

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Where did you find Scherr?  
It is difficult to imagine you  
could have found someone  
with less knowledge about  
the automotive world. She  
checks every box and ful-  
fills every requirement for  
journalistic incompetence.  
Boring, untalented, insuffer-  
able, banal, trite, and inane.  
Please end our torture of  
opening the magazine every  
month only to discover she  
is still wasting space and ink.

—Jack Dale

Sun City, AZ

**Boom, roasted. Welcome  
aboard, Scherr—Ed.**

### GIVING TREES

No more gift guides, please  
[December 2020]. We want  
to read about new cars.

—Tommie G.

Bloomfield Township, MI

I know it is forced on you  
by your Hearst overlords,  
but that gift guide in the  
December issue is a shame.  
Go read *Popular Mechanics*  
if you want that stuff. It's  
even sadder that it's written  
by your fine staff members.  
Dyer being forced to write  
product reviews is like  
Michael Jordan being forced  
to play basketball against  
kids in *Space Jam*. I would  
pay more for a subscription  
if it would help banish such  
things. How much would it  
cost to buy your freedom  
from the oppressors?

—Kelly Lynn

Guthrie, OK

**How much you got,  
Lynn?—Ed.**

### KNOWLEDGE GAP

I just finished reading your  
scintillating article about  
panel gaps ["Minding the  
Gap," December 2020].

You certainly destroyed  
many of my preconceived  
notions about panel gaps.  
I am looking forward to  
your comparison test of  
power-window speeds.

—Tom Kramer

Baiting Hollow, NY

**Please keep the great ideas  
coming, Kramer—Ed.**

You've saved another mar-  
riage. For years my wife  
has been telling me that  
examining body panel gaps  
was not "a thing." I held my  
ground, insisting that looking  
at panel gaps was indeed a  
good use of time and effort.  
Of course, I was excited to  
show her your excellent  
article that validated how  
interesting and useful this is.

—Joe Laubach

Seattle, WA

### JUMPMAN

Congratulations, *Pickup  
Truck and Driver*. I can't  
tell you how useful being  
able to jump a pickup is to  
me ["The Art of Flight,"  
December 2020].

—Paul Davis

Grants Pass, OR

### BANK SHOTS

Just wanted to let you  
know that I agree with Tom  
Orashan's comments in the  
December issue. I enjoy the  
articles on all the exotic,  
ultraexpensive automobiles.  
I will never be able to own or  
even test-drive these won-  
derful machines, so thanks  
for the great descriptions of  
your experiences with them.  
Keep up the great work.

—David Hicks

Independence, MO

### DIGESTIFS

Is this how to do a Backfire?

—Jared Kubit

Webster, NY

**Pretty much—Ed.**

Are you planning a piece on  
the Honda CR-V? Well, if you  
are, here's the headline: A  
CR-V and Rider. It's an ana-  
gram of the magazine! It took  
me hours to figure this out.

—Merlla Malone

Forest Park, IL

**The best anagram we could  
come up with for your name  
is Lame Name Roll—Ed.**

I suggest you try to  
snag an interview with  
Elan [sic] Musk.

—Michael Ravnitzky

Silver Spring, MD

**His PR people won't**

**Lotus near him—Ed.** 🇺🇸



TONY  
ROMO

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— Mike Valentine



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# Tracking Progress

Porsche's new 911 GT3 adopts two race-bred ideas in pursuit of faster laps.

This is the first roadgoing 911 that doesn't use a strut front-suspension design.

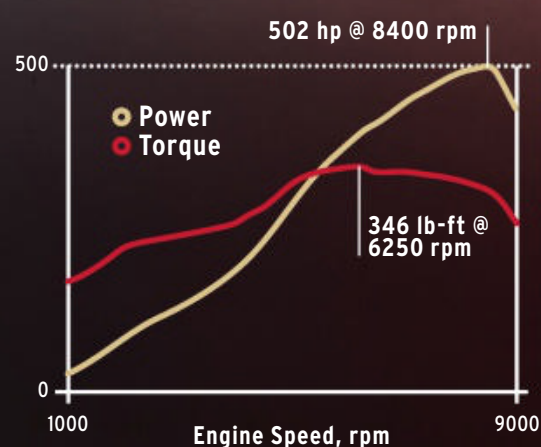
The wing is hung from swan-neck pylons to increase downforce.



**The Porsche 911 GT3 changes**, but it mostly stays the same. Since the 996-gen 911 began the dynasty in 1999, the GT3 has remained true to its original form with a high-revving naturally aspirated flat-six, a track-biased suspension, and a commendable lack of fripperies and needless ornament. A new iteration of Porsche's most focused sports car doesn't need to be different to earn enthusiasts' attention and respect.

Yet the GT3 has also made some major leaps as it has evolved. With the arrival of the 992-generation model, the GT3 jumps to an unequal-length control-arm front suspension. That makes it the first roadgoing 911 to eschew struts up front. The new setup is heavily influenced by the suspension that Porsche pioneered in the 911 RSR race car back in 2013. The arrangement improves camber stability, better maintaining the wheels' orientation and thus the shape of the tires' contact patch through turns and as the suspension compresses and rebounds. Spring rates have more than doubled, but we're told ride quality hasn't diminished, thanks to new adaptive dampers that adjust valving in as little as 10 milliseconds.

## BIG POWER, BIGGER REVS







## REVEAL OF THE MONTH

Porsche says this GT3 weighs about the same as the last one—which tipped the scales at 3262 pounds—but that it has a stiffer body shell. The car also hangs its giant wing from swan-neck pylons as seen in sports-car racing and on the McLaren Senna [see “The Elegant Swans”]. In its most aggressive aero setup, the new GT3 generates up to 150 percent more downforce than its predecessor. Porsche will again offer a wingless Touring version that trades some track performance for rearward visibility.

The GT3 continues to use a naturally aspirated 4.0-liter version of Porsche’s 9A1 flat-six. That means six individual throttle bodies and a 9000-rpm rev limiter, plus—we’re making an assumption here—a soundtrack that encourages its driver to push it to redline as often as possible. Output peaks at 502 horsepower at 8400 rpm and 346 pound-feet of torque at a lofty 6250 rpm.

The standard seven-speed dual-clutch transmission carries over from the prior GT3, saving 40 pounds compared with the eight-speed unit in other 992-generation 911s. Porsche also replaces the 911’s nubby gear selector with a more conventional-looking lever that allows for manual gear selection (there are shift paddles as well). But if you plan to pick the gears yourself, it’ll be the optional six-speed manual that you want. Porsche is quoting the same 3.2-second 60-mph time for the automatic as the last gen and a one-tenth-better 3.7-second time for the stick. (For reference, we ran the old auto GT3 through



that benchmark in 2.9 seconds, and the manual, in 3.3.)

Bigger differences should emerge on track, where the new suspension and aero improvements will come more into play, evidenced by the fact that this car lapped the Nürburgring quicker than the 991.2 GT3 RS. We can safely predict it will cost more than the \$144,850 Porsche asked for the last version and that there will be no shortage of willing buyers—and envious fans—when deliveries begin in the fall. —Mike Duff



To achieve quicker chassis responses, Porsche uses ball joints in place of bushings in the GT3’s race-derived front suspension.

### THE ELEGANT SWANS

A wing generates downforce when the air flowing underneath it moves faster than the air flowing above it. With a conventionally mounted wing, the column-like pylons that hold it up disrupt airflow below the wing, creating pockets of slow-moving, turbulent air. But swan-neck pylons such as the 2022 GT3’s have an aerodynamic profile that allows air to wrap around them and flow smoothly across the wing’s underside, increasing downforce.





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# The Chrysler Brand Cull Is Coming

In the sprawling new Stellantis empire, some must die so that others may live.



Like *Mad Men*'s fictional merger of clumsily surnamed ad agencies, Fiat Chrysler Automobiles and Peugeot S.A. (PSA Group) have united their agglomeration of brands to produce a new corporation: Stellantis. That name would have Don Draper reaching for his Canadian Club; it's more redolent of erectile-dysfunction ads than of anything automotive. But in a world with a hard-on for mergers and shareholders, the new company—valued at \$52 billion when formed—brings the same old problems. First, what to do about stragglers such as Chrysler, Dodge, Fiat, Alfa Romeo, Maserati, Lancia, Opel, DS, and Vauxhall. Some of these legacy brands, defenseless against nimbler rivals and electric disrupters, cannot survive.

In a press conference on January 19, Stellantis CEO Carlos Tavares—a former rally driver and PSA chief executive—insisted that no job or brand cuts are planned. It's unclear how long he can stick to that. Tavares admits

he's looking for cost savings and “synergies” worth about \$6 billion, and something's got to give: According to industry watcher LMC Automotive, the 14 brands that make up Stellantis [see “The French Connection,” page 80] have the factory capacity to make almost 6 million more vehicles annually. That's

roughly equivalent to Ford's yearly global output. And in the Asia-Pacific region, the corporation is using just 8 percent of its factory capacity.

Tavares is walking on eggshells right now, but he almost certainly knows what happens when a single company is forced to support a large, potentially squabbling multinational family, all jostling for table space. It's reminiscent of the failed DaimlerChrysler marriage, but with more mouths to feed and potential power struggles. Tavares holds the tiebreaking vote on the 11-member board, giving PSA the advantage. FCA's John Elkann, scion of the Fiat-founding Agnelli family, has become the chairman of Stellantis, and former FCA CEO Mike Manley is heading up North American operations.

Pressure will come from all corners of the globe. No executive, union, or government wants its division or nation to bear the brunt of any downsizing. Analysts believe Fiat's plant in Kragujevac, Serbia, and the





Vauxhall and Opel plant in Ellesmere Port, U.K., are especially vulnerable because they're not on Stellantis's de facto home turf in France, Italy, or the U.S.

Switching to our reliably self-interested American view: How will Manley make sure we get our fair share of development dollars, investment, models, and jobs? He needn't worry much about Ram, whose profits make it worth a half-dozen Stellantis brand laggards, or Jeep, FCA's crown jewel. If Manley has the clout, and Tavares's ear, he might start by killing some sacrificial lambs: Cut Alfa and Fiat from the U.S. Forget that Tavares had voiced hopes for their revival; he's apparently already abandoned long-held dreams of selling Peugeots and Citroëns here, with a source telling Reuters, "That plan is dead."

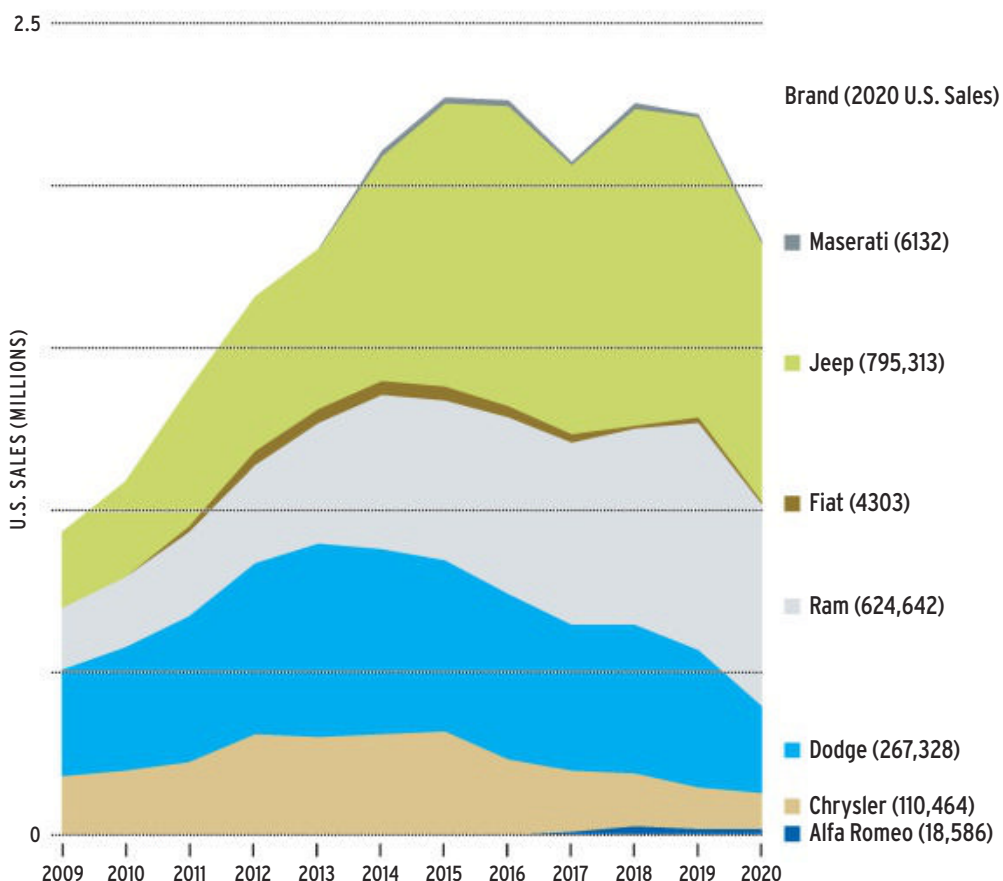
Next, he could shutter Chrysler to eliminate a needless distraction, ideally as Stellantis trims its own redundant Euro brands. Mercy-kill the 300 and rebadge the Pacifica as a Dodge or even a Ram; no customer will care. Then use the money currently being thrown down the Fiat-Alfa-Chrysler well to revive Dodge, the brand worth saving as a third stabilizing leg alongside Jeep and Ram.

As much as enthusiasts love their Giulias and 500 Abarths, the Italian invasion led by the late Sergio Marchionne has proved a folly. Fiat's U.S. sales plummeted to just 4304 units last year, from a high of 46,999 in 2012. The Dodge Dart, an ostensible bomb, was finding more than 85,000 buyers at its peak, 20 times Fiat's U.S. sales today. Last year Alfa Romeo sold about 18,500 Giulias and Stelvios here, while Dodge found almost three times as many buyers for its profitable Challenger—and that includes the high-priced Hellcat versions, whose cultural reach and halo impact are immeasurable. On top of that, Dodge sold some 77,000 Chargers, 58,000 Durangos, 40,000 Journeys, and 39,000 Caravans.

Stellantis needs a healthy car-and-crossover brand in the U.S. In 2019, FCA achieved the worst corporate average fuel economy of any automaker, and President Biden is determined to restore

## BRAND MANAGEMENT

Business has been good since Fiat partnered with Chrysler in 2009, but the sales growth has been driven almost entirely by Jeep and Ram while Dodge and Chrysler have been starved for new products, particularly crossovers.



stricter efficiency standards that President Trump knee-capped. What happens if the SUV-and-pickup party is deflated by regulations or a renewed interest in cars? Toyota, Hyundai, and Honda have wisely hedged their bets by continuing to offer vehicles in all sizes and shapes, including enthusiast models. Dodge can be that brand, with still viable equity and fond associations for many Americans.

At the press conference, Tavares floated the idea of introducing "sister cars" to PSA models as a cost-saving measure. Done wrong, that could mean badge engineering of the Chrysler TC by Maserati sort. Done right, modern cost-sharing platforms could help Dodge develop more-competitive cars and SUVs. Plenty of people would prefer a sporty Dodge-branded crossover to a Kia or a Toyota. Those Dodges could marry distinctly American design—Mopar muscle cars being the obvious start—with turbocharged engines and electrified high-performance versions. Ford and GM are already on that path, with the Mustang Mach-E and a reported Corvette crossover in the works. Surely, Stellantis's return on investment would be better than a quixotic bid to get mainstream shoppers to buy Italian cars.

A skeptic might say it doesn't cost Stellantis much to keep Chrysler or other hangers-on. By the same token, Salvation Army furniture doesn't cost much. The question is, Do you really need that wobbly coffee table? Hoarding is bad enough when your grandmother does it. For Stellantis, holding on to junk brands and expecting them to turn to gold could prove fatal. —Lawrence Ulrich

TURN TO THE  
LAST PAGE  
TO SEE THE FULL  
SCOPE OF THE  
STELLANTIS  
BRAND EMPIRE.

p.80







# Formula Woke

Extreme E uses dirt-slinging off-road racing to advance a cause.



To describe Extreme E as an off-road version of Formula E would sell the new race series short. Wheel-to-wheel action on loose surfaces should make this EV competition more interesting to watch than that tightly fought but relatively slow open-wheel race series. Just be prepared for even more planet-saving rhetoric in Extreme E. The locations for the first season's five races—Saudi Arabia, Senegal, Greenland, Brazil, and Argentina—were chosen to highlight threatened environments and the effects of climate change, and the rules call for each team to split driving duties equally among male and female drivers. Here's what you need to know about Extreme E, which is scheduled to kick off on April 3. —Mike Duff

## THE VEHICLES

In the first two seasons, teams will use SUV-style buggies with 536 horsepower and all-wheel drive. Electricity comes from a 54.0-kWh battery pack produced by Williams Advanced Engineering in the U.K. Teams are restricted to one full battery charge a day using electricity generated by hydrogen fuel cells.

## ALEJANDRO AGAG, EXTREME E FOUNDER

“It’s a fun project with a very deep meaning, showcasing through sport what is going on with climate change. Did you know 24 of the 25 most watched [televised events] of all time featured sports? It has huge power to reach people. With Extreme E, we want to use sport to get people closer to what is going on with the planet.”



## THE FORMAT

In each race, four cars compete on a bumpy, jumpy off-road course about five miles in length. Every car has two drivers—one male, one female—who do a lap apiece. Each team competes in two of four qualifying heats on the first day to decide its position in the semifinals. On day two, the top four qualifiers race, and the last-place team is cut. Then the bottom four square off in the so-called Crazy Race, and the winner advances to the final. Also, whichever car jumps farthest on the first crest of each race gets a Hyperdrive speed boost to be used later.



## HOW TO WATCH

Races will be broadcast on Fox Sports and MotorTrend [The magazine?—Ed.]. As in Formula E, fans will be encouraged to interact through social media. The team that receives the most online love gets to decide its grid position in the final.

## THE PLAYERS

Formula 1 champions Lewis Hamilton, Nico Rosberg, and Jenson Button are fielding teams, with Button driving and nine-time WRC champion Sébastien Loeb racing for Hamilton's X44 outfit. Chip Ganassi Racing is campaigning a Hummer-branded buggy with an all-American roster: Trophy Truck racer Kyle LeDuc and motocross rider Sara Price.





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# BUILD A BALLOON-POWERED CAR

Want a quarantine toy of your own? This project uses stuff you probably have lying around the house, so grab an adult to help and get your design in motion!

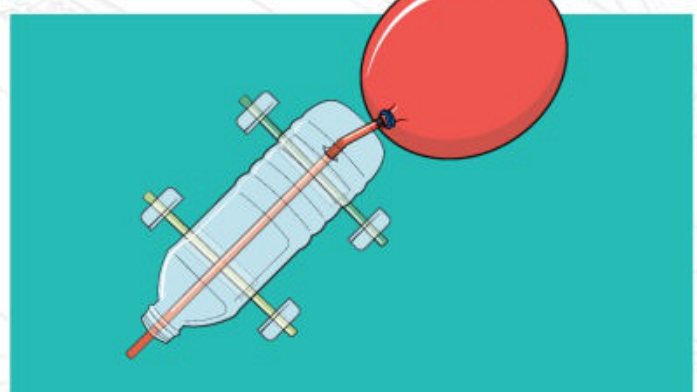
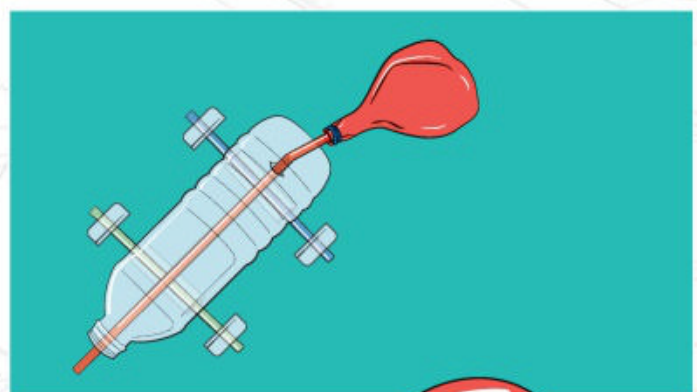
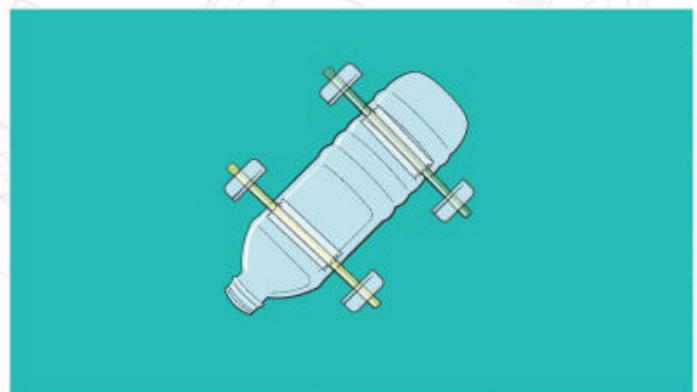
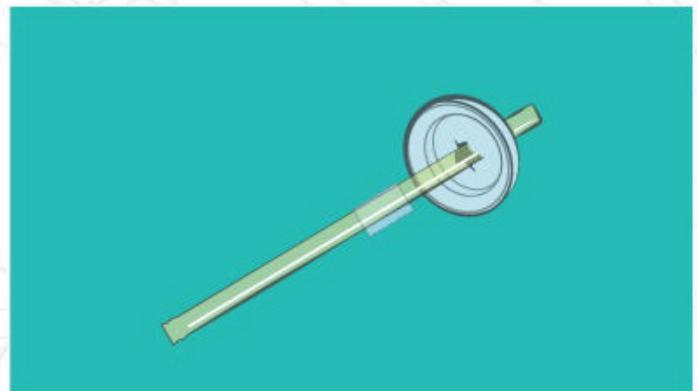
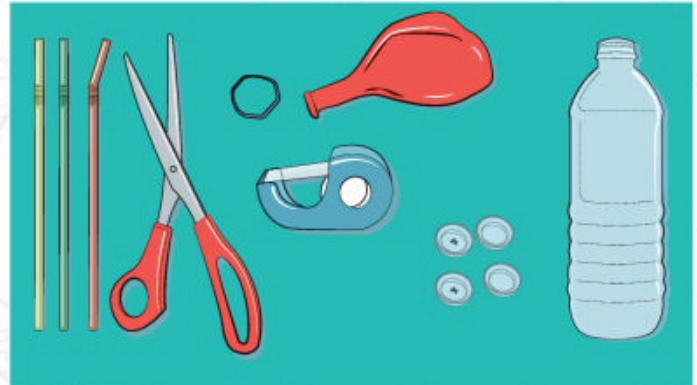
## YOU WILL NEED:

- 1 balloon
- 1 empty water bottle
- 4 water bottle caps
- 3 bendy straws
- 1 rubber band
- Scissors
- Tape

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PAINT AND  
STICKERS!**

## INSTRUCTIONS:

1. Cut two of the straws to even lengths, around four inches. These are your car's axles.
2. Poke a hole in the center of each bottle cap. These are the tires.
3. Squeeze the ends of the straws through the holes so they fit snugly.
4. Make a loose loop of tape around the center of each axle, sticky side up. The straw should be able to spin inside it easily.
5. Tape over the loop to connect the axles to the bottom of the bottle.
6. Cut a hole on the top of the bottle, on the opposite end from the water bottle's opening.
7. Use the rubber band to form an airtight seal between the balloon and the other bendy straw.
8. Stick the straw into the hole so that the end comes out the opening, and the balloon sits on top of the car.
9. Inflate the balloon by blowing into the straw and use your fingers to keep air from escaping.
10. Set your car on the ground, let go of the straw and watch it zoom!



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# Flying Blind

An SUV or truck can give you a commanding view over the road—as long as you're not concerned with what's immediately in front of you.

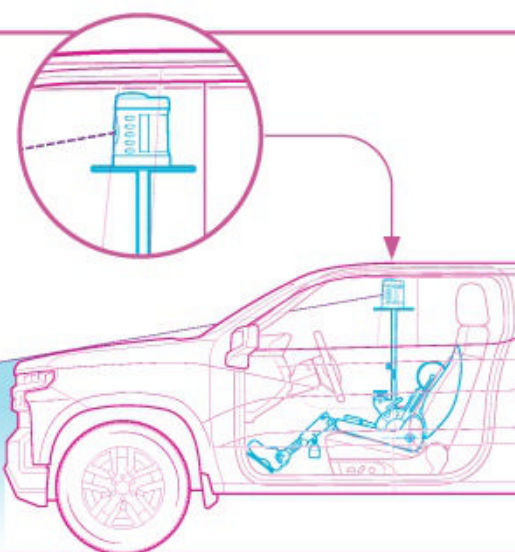


**Safety advocacy group** KidsandCars.org says that, on average, about 50 children are killed and more than 3000 are injured every year in what it calls “frontovers,” where a driver rolls forward and hits someone hidden by the vehicle’s nose. As more Americans trade cars for utility vehicles, and as big and blocky come back into fashion, these rare but devastating accidents could become more common.

Every vehicle has a front blind zone, but the wedge of roadway that’s obscured by the hood is significantly larger on models with tall, blunt front ends. We’ve been compiling data on forward visibility since 2015 and have found that vehicles within the same segment are similarly compromised, with the worst offenders being—shocker—pickups and large SUVs. For perspective, a 2020 GMC Sierra 2500 HD Denali’s blind zone is more than three times larger than the 2017 Honda CR-V’s. —**Eric Tingwall**

## METHODOLOGY

We position the driver’s seat in the middle of its horizontal and vertical travel and place our H-point dummy—sized like the five-foot-nine, 172-pound 50th percentile North American male—behind the wheel. From this average man’s vantage, we shoot a laser toward the ground at the steepest angle possible without hitting the hood. We then employ sophomore trigonometry, using the length and height of this imaginary triangle to calculate the area of the blind zone.



### AS CLEAR AS MUD

A tall hood and a low seating position are a recipe for bad forward visibility. The off-road-focused Toyota Tacoma TRD has a seating position about four inches lower than that of the Tundra, while its 45-inch-tall hood obstruction is just two inches lower. This gives the Tacoma a larger front blind zone than its half-ton brother.

### GOING STEADY

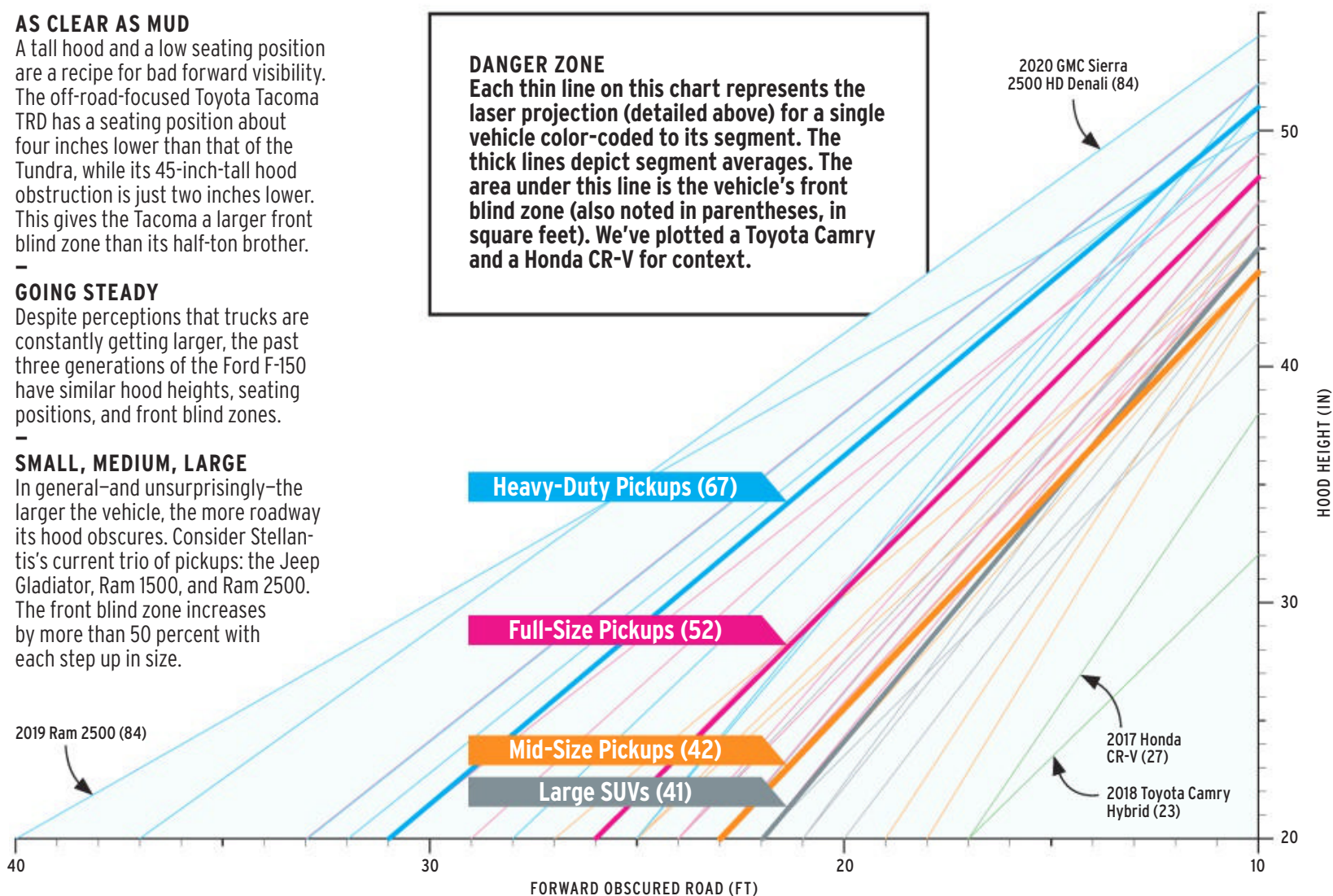
Despite perceptions that trucks are constantly getting larger, the past three generations of the Ford F-150 have similar hood heights, seating positions, and front blind zones.

### SMALL, MEDIUM, LARGE

In general—and unsurprisingly—the larger the vehicle, the more roadway its hood obscures. Consider Stellantis’s current trio of pickups: the Jeep Gladiator, Ram 1500, and Ram 2500. The front blind zone increases by more than 50 percent with each step up in size.

### DANGER ZONE

Each thin line on this chart represents the laser projection (detailed above) for a single vehicle color-coded to its segment. The thick lines depict segment averages. The area under this line is the vehicle’s front blind zone (also noted in parentheses, in square feet). We’ve plotted a Toyota Camry and a Honda CR-V for context.







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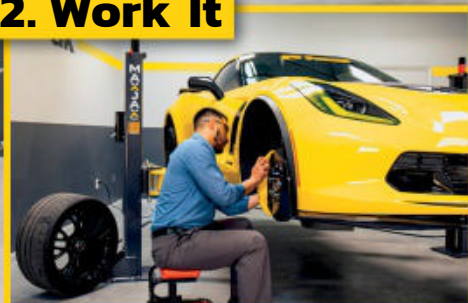


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EZRA DYER



# Minivan Man

I avoided the stigma of sliding doors for a decade. Now I'm righting my wrongs as a proud minivan owner and influencer.



Let me tell you about my minivan. Oh yeah, I sure did: a Ceramic Gray 2020 Chrysler Pacifica Hybrid Red S Edition. After eight years of faithful service and righteous depreciation, the ol' Lincoln MKT EcoBoost is gone, replaced by the Pacifica. When I informed one of my colleagues about this development, he responded, "You traded your 350-hp Lincoln for a hybrid minivan. Strange times." Uh, incorrect, sir! The Lincoln had 355 horsepower. And all-wheel drive. And a tow package. The Pacifica Hybrid has a tow rating of "not recommended." Oh no, what have I done?

The smartest thing ever, that's what. My oldest kid is now 10, and my only regret is that I didn't buy a minivan a decade ago. What derangement caused me to think that power-sliding doors were somehow antithetical to my worldview? They're car doors. And my personality is not defined by the doors on my car. It's defined by my collection of vintage Garbage Pail Kids stickers, my preference for Oates over Hall, and my "inability to read the room." Sorry, that last one was from my most recent performance review, but you get the idea.

If you've never heard of the Pacifica Hybrid Red S Edition, don't worry—Chrysler barely has, either. When it announced the model for 2020 (extremely quietly), FCA's media site said that the Hybrid Red S would come with a panoramic sunroof. It doesn't. And my car's own window sticker says the interior is

black. It's not. The leather upholstery is red. And not a burgundy or oxblood sort of red. More like Rosso Corsa's embarrassingly extroverted cousin, Molto Uh-Oh. Hey, if you're gonna get a minivan, own it. And I mean that literally, since I don't really understand how leases work.

The genesis of this purchase was a trip in the 2021 Pacifica, during which my wife and I had the epiphany that we really loved that thing. Then I wrote about it, and all you minivan freaks jumped in the comments section to tell me to get one. If there's one thing I've learned, you can never go wrong taking direction from internet commenters. Once I made the cognitive leap to minivan acceptance, I found that I also possessed deeply held beliefs about minivan aesthetics. As in, I definitely prefer the Pacifica's S Appearance package, which blacks out the chrome and adds dark wheels. But the regular S package comes only with an all-black interior, making the Pacifica's cabin look like Pluto's Cave. If you want the stealth exterior without the dour interior, the Red S is the answer. Plus, it's fun to open the door of a minivan and be confronted with a Las Vegas lounge.

We went with the hybrid because the Pacifica's 32 miles of electric range are more than enough for our usual daily driving, and its smooth and silent EV behavior complements the minivan's luxurious mien. And the hybrid gets about 30 mpg on the highway, even with a depleted battery. Which we learned about the moment we drove off the lot, because when you ask a Chrysler dealer if they have a charger, they'll probably say, "Sure! We've got Scat Packs, Hellcats, all kinds of Chargers." But no SAE J1772s, meaning that the Pacifica Hybrid was delivered with a drained battery. That's a common situation, according to fellow owners on the Pacifica forum.

The Hybrid's electric motors make 231 and 92 pound-feet of torque, but those figures don't convey the van's power to bewitch all who drive it. A few days after we brought home the Red S, I let my sister-in-law, Elena, take it for a spin. A few days after that, her 2016 GMC Yukon XL was gone, replaced by a Pacifica Hybrid Red S Edition. Apparently, I am now an incredibly specific kind of influencer. The first day she drove it to work, Elena texted me, "I absolutely love this car."

Me, too. I miss the MKT, but like they say, one door closes, another door opens. Or two doors open, and they're remote power-operated sliders, and you wonder why you ever refused such a luxury. Okay, minivan people, you were right. But I'm still keeping the Bronco. 🇺🇸

Haters will say it's a lease. #newwhip #vanlife #influencer #moltouhoh

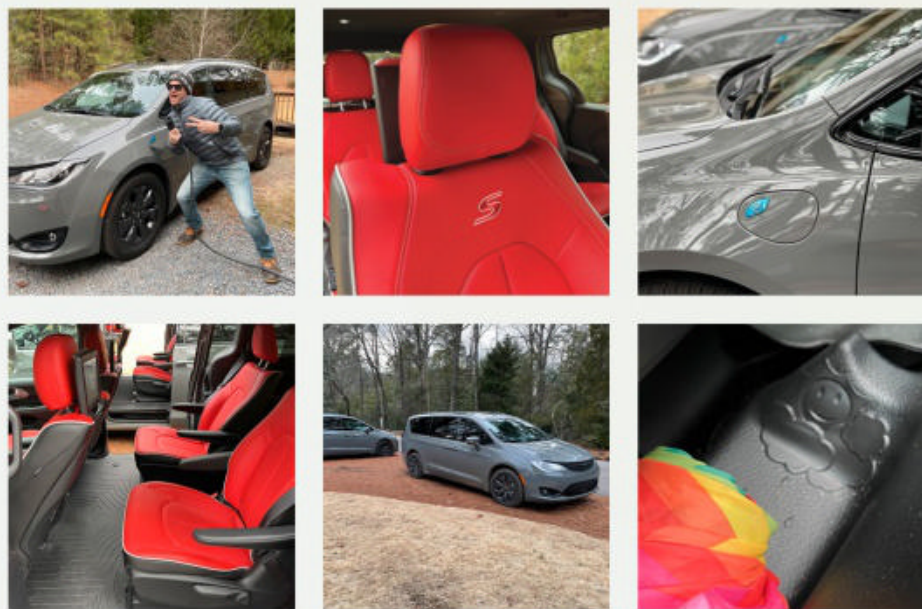


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ELANA SCHERR



# Phoenix Rising

Was it one guy's dream to turbocharge the Trans Am or just a bad couple of years at the end of an era? Only way to find out is to ask.



The 1977 Pontiac Trans Am gets all the attention, what with its starring role in *Smokey and the Bandit*, but to me, the turbocharged 1980–81 Trans Am is the most interesting second-gen Firebird. I bought one last summer. It's not exactly a basket case, but it's certainly basket adjacent, which means my husband, Tom, and I spent a fair amount of time making eye contact with its aggro avian hood graphics while getting elbows deep in its draw-through, computerized-carburetor-topped turbo system. It's a real weirdo. Along with being a historical standout as the second turbocharged American V-8, the turbo 301 is also the last Pontiac V-8 to power a Trans Am. That might not mean much today, when LS-swapped Ferraris and 2JZ-powered muscle cars are common car-show fare, but to Pontiac engineers in 1979, keeping the T/A a fiery-feathered performer with a Poncho V-8 was worth a battle. And battle they did.

John Schinella became a Pontiac designer in the '70s. His personal T/A triumphs include the black-and-gold paint scheme, which won over *Smokey* director Hal Needham, and the giant screaming chicken. He had to fight for the hood bird: "[The design and production teams] told me it was too hard to install, so I went down to the plant and found two guys doing the decals in a dark corner on the cardboard box the parts came in. I went back and said, 'Maybe if you gave 'em a light and a table it wouldn't be so hard.'" Schinella also has bragging rights to one of the best details of the turbo cars: the three-light pod on the hood that shows the boost level. "Originally, I had

the light accelerate across, like what we did later with [the scanner light on KITT, the '82 Pontiac from *Knight Rider*]. It would glow brighter as it went across. Engineering said we couldn't do that. Engineering didn't like me sometimes."

In Engineering's defense, it was under a lot of pressure in 1979. "I was responsible for engines at a time period that was probably the darkest for engines in the automotive industry, driven by emissions and fuel-economy requirements that we were struggling to meet," said Leo Hilke, Pontiac's chief engineer of induction, emissions, and exhaust during the turbo-engine development. The turbo, he said, was the hardest to engineer of all the engines in 1980, but it was either blow the 301 or use a Chevrolet engine. (When he said the C-word, I'm pretty sure he spit to chase away the devil.) "We went with the 301," he said. "We had optimized it for efficiency, and it was a very successful engine for what it was aimed at. Adding a turbo on top of it was quite a push."

Jim Lyons was instrumental in making that happen. A professor at General Motors Institute (GMI), he had developed a turbocharged V-8 as a class project in 1974. So when "Pontiac was dreading the fact that they were going to have to put a Chevrolet engine in a Trans Am, I took our project car down and gave those guys a ride," Lyons told me. "They didn't even let me take the T/A back to Flint. Just handed me the keys to a company car, and then they rented me from GMI to help develop it."

Charlie Baker, a GMI student at the time, remembers Lyons being more aggressive in selling the idea: "He said, 'You dead-ass guys ought to get off your dead asses and do a turbo for the Trans Am because you're not in the swing of things here!'" Once the dead asses got moving, one of Baker's first gigs was working on the car. "Lyons said, 'Baker, you're a hot-rodder. You know full-throttle tuning. Go do it.' I said, 'Fantastic. I'll go out to the Milford proving ground.' He said, 'No, too much bureaucracy. You can do zero-to-60s out in the parking lot. Don't kill yourself, and don't get caught.'"

This resonated with me, as I do all my tuning on a closed course (parking lot) down the street. I texted Baker a video of my, er, "tire testing." He wrote back right away: "Brings back memories!" Later I sent him the printout from the T/A's smog test, which it passed. "A miracle, considering the technology," he answered, with a smiley emoji. I told him it's going to be my new daily driver, to which he replied, "I admire your confidence." If I have a problem, I know who to call. 🇺🇸

Tire testing with the Turbo Trans Am at Scherr's local proving ground.





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In the history of timepieces, few moments are more important than the creation of the world's first Piezo timepiece. First released to the public in 1969, the watch turned the entire industry on its head, ushering in a new era of timekeeping. It's this legacy that we're honoring with the **Timemaster Watch**, available only through Stauer at a price only we can offer.

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The result of ten years of research and development by some of the world's top engineers, they discovered that when you squeeze a certain type of crystal, it generates a tiny electric current. And, if you pass electricity through the crystal, it vibrates at a precise frequency—exactly 32,768 times each second. When it came on the market, the Piezo watch was the most dependable timepiece available, accurate to 0.2 seconds per day. Today, it's still considered a spectacular advance in electrical engineering.

[“Piezo timepieces]...it would shake the Swiss watch industry to its very foundations.”

—Foundation For Economic Education

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# THE LAST





# SHIFT

CADILLAC'S CT4-V BLACKWING AND CT5-V BLACKWING  
PACK BIG POWER, TRACK CAPABILITY,  
AND STANDARD MANUAL TRANSMISSIONS.

THEY WILL BE THE LAST Vs TO RUN ON GAS.  
BY DAVE VANDERWERP



PHOTOGRAPHY BY JOHN ROE



For Cadillac's new Blackwing sedans, the beginning is also the end. The CT4-V Blackwing and CT5-V Blackwing mark the finish line of the brand's nearly two-decade quest to combine brutally powerful engines with precise handling and luxurious refinement. Cadillac says these are the last gas-burning V cars it will build. Will the coming electric era render anything as memorable as the second-generation CTS-V—a car that came in coupe, sedan, or wagon form with 556 horsepower and an available six-speed manual transmission?

Despite the uncertainty of that unanswerable question, giddiness is warranted, because both Blackwings come standard with a six-speed Tremec TR6060 manual. It's a somewhat surprising move, considering Cadillac hasn't offered a stick in a V-8-powered sports sedan since the two-generation-old CTS-V. But the brand said the continued desirability of that car—the wagon is selling at or near the original price today—helped justify the manual in the CT5, the last three-pedal V-8 sedan standing. A 10-speed automatic is available on either car for those who don't subscribe to the same values as this publication.

The Blackwings are not all-new cars, but rather an evolution of the outrageously great-to-drive ATS-V and CTS-V. Both get slightly more power than their predecessors as well as bigger brakes, including a V-first carbon-ceramic option on the CT5. If there was one clear takeaway from winging the lesser 325-hp CT4-V and 360-hp CT5-V around Virginia International Raceway during our latest Lightning Lap test, it's that GM's Alpha architecture is begging for a whole lot more power. The Blackwings deliver 147 and 308 horses more, respectively, than those junior Vs and are, Cadillac claims, the most track-capable Caddys ever. The company promises they'll be seconds quicker than the ATS-V and CTS-V at our favorite track.

In the CT5, the supercharged 6.2-liter V-8 returns from the CTS-V for an encore. Intake and exhaust enhancements bump its output from 640 horsepower to 668 and from 630 pound-feet of torque to 659. Although the Eaton supercharger still displaces 1.7 liters of air with each rotation, it now has smaller-diameter four-lobe rotors to hasten response. Each engine is hand-built by a single technician at the Corvette assembly plant in Bowling Green,

	CT4 - V BLACKWING	CT5 - V BLACKWING
Vehicle Type	front-engine, rear-wheel-drive, 5-passenger, 4-door sedan	front-engine, rear-wheel-drive, 5-passenger, 4-door sedan
Base Engine	\$59,990 twin-turbocharged and intercooled DOHC 24-valve V-6, aluminum block and heads, direct fuel injection	\$84,990 supercharged and intercooled pushrod 16-valve V-8, aluminum block and heads, direct fuel injection
Displacement	217 in <sup>3</sup> , 3564 cm <sup>3</sup>	376 in <sup>3</sup> , 6162 cm <sup>3</sup>
Power	472 hp @ 5750 rpm	668 hp @ 6500 rpm
Torque	445 lb-ft @ 3500 rpm	659 lb-ft @ 3600 rpm
Transmissions	6-speed manual, 10-speed automatic	6-speed manual, 10-speed automatic
Dimensions		
Wheelbase	109.3 in	116.0 in
L/W/H	187.6/71.5/56.0 in	194.9/74.1/56.6 in
Curb Weight	3900 lb	4150 lb
Performance (C/D est)		
60 mph	3.8-4.1 sec	3.5-3.9 sec
100 mph	8.3-8.7 sec	7.4-7.8 sec
1/4-Mile	12.0-12.4 sec	11.7-12.1 sec
Top Speed	189 mph	205 mph
EPA Fuel Economy (C/D est)		
Comb/City/Hwy	19-20/16-17/23-25 mpg	16/14/20 mpg

Kentucky. At startup, the V-8 erupts to life with a vicious bark and all the pent-up anger of an endangered species.

In case you needed another reason to be sold on the manual, the CT4-V Blackwing's engine gets titanium connecting rods to improve its responsiveness, but only with the six-speed. Although the CT4's twin-turbo V-6 retains its LF4 designation, and peak power is up only eight horses, to 472, Cadillac executive chief engineer Brandon Vivian promises it "drives like a new engine." Much work was done to fill in its power curve and amp up its sound character, which was less than thrilling in the ATS-V.

We expect the CT4's search for 60 mph will take 3.8 seconds; the CT5's, 3.5. These quotes are for the automatic-equipped cars and aren't any quicker than before. The manuals will be a few tenths slower. No one cares, especially not us. The CT4 will max out at a claimed

**WHAT'S IN A NAME? WE HAVE ANSWERS TO ALL YOUR BLACKWING QUESTIONS.**

**What's a Blackwing?**

It's an identifier for birds, expensive pencils, the V-8 engine that powered the CT6 and CT6-V, and now a pair of Cadillac performance sedans. In its automotive uses, the

name was inspired by the black merlettes (mythical birds without feet) on the original Cadillac crest.

**But wasn't the Blackwing engine a DOHC V-8?**

It was. That 500- or 550-hp 4.2-liter nestled two turbos in its V.

**So why don't the new Blackwing models have that V-8?**

Cost, for one. Plus, the

CT5-V's supercharged small-block makes considerably more power.

**What happened to the Blackwing V-8?**

It's dead, never to see duty in anything but a few CT6s.

**Seriously? That must have been expensive.**

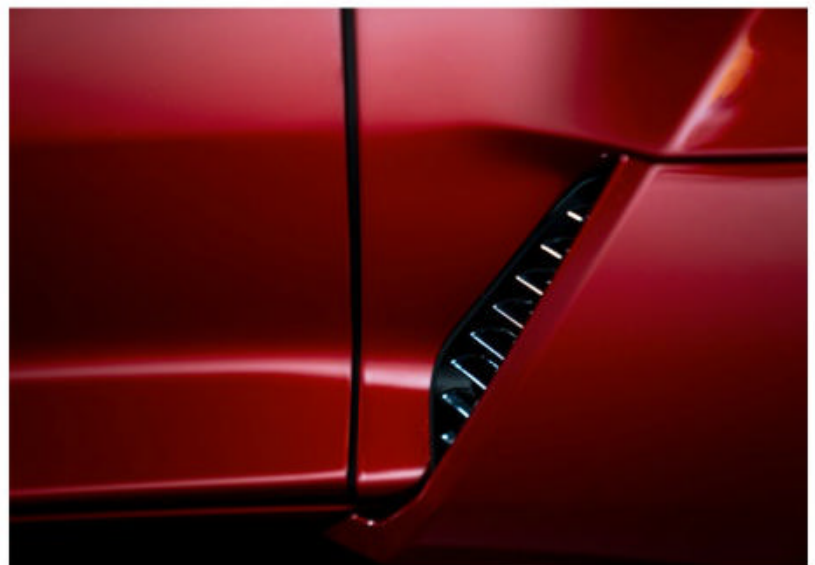
Sure was—\$16 million, according to reports, which amounts to about \$13,000 for each of the

roughly 1200 engines that were built.

**What does Blackwing mean now?**

Cadillac says it simply denotes "the very highest standard of execution." Interestingly, there is no Blackwing symbol on the exterior of these cars. About the only place to find one is on the digital gauge cluster during the startup animations.





A VERITABLE FOUR-DOOR CORVETTE, THE 668-HP CT5-V BLACKWING IS MORE POWERFUL THAN ANY NEW VETTE YOU CAN BUY—FOR NOW. OPTIONAL HIGH-PERFORMANCE SEATS OFFER 18-WAY ADJUSTABILITY, WHILE THE AVAILABLE CARBON-CERAMIC BRAKES SAVE 53 POUNDS.



## FROM "THE CADDY THAT ZIGS" TO CADDYS THAT ACTUALLY ZIG: A BRIEF HISTORY OF CADILLAC'S QUEST FOR HIGH PERFORMANCE

Performance: ■ 60 mph, sec ■ 1/4-Mile, sec ■ Roadholding, g



### 1997 Catera

The first rear-drive compact Caddy was heavy and slow, and back in 2000, we said that "during 90 of 100 handling maneuvers, the Catera reacts remarkably like a front-drive car."

■ 8.9 ■ 16.8 ■ 0.76



### 2014 CTS Vsport

We loved the first not-quite-a-V and its 420-hp twin-turbo 3.6-liter V-6, naming the car to our 10Best list three years straight. The Impala-based 2014 XTS Vsport with a 410-hp version of this powertrain was far less endearing.

■ 4.4 ■ 12.9 ■ 0.97



### 2004 CTS-V

Based on the all-new 2003 CTS, the first V was powered by the Corvette Z06's 400-hp LS6 V-8. It came only with a manual transmission and seriously closed the gap with the established German competitors.

■ 4.8 ■ 13.2 ■ 0.90



### 2016 CTS-V

Cadillac ever so slightly tempered our enthusiasm for a 640-hp, 200-mph sedan by building the third-gen CTS-V with only an automatic transmission.

■ 3.5 ■ 11.7 ■ 0.98



### 2006 XLR-V

The XLR remains the only Cadillac to be built on a Corvette platform, and the V model used a Northstar 443-hp supercharged V-8.

■ 4.7 ■ 13.0 ■ 0.87



### 2016 ATS-V

The ATS featured two V firsts: fewer than eight cylinders and turbocharging. Available as a sedan or a coupe, the knife-edged ATS-V had a twin-turbo 3.6-liter V-6 making 464 horsepower.

■ 3.8 ■ 12.0 ■ 1.02  
(automatic sedan)



### 2006 STS-V

The CTS's larger sibling had a 469-hp version of the blown Northstar, making it the most powerful Cadillac for a time.

■ 4.6 ■ 13.2 ■ 0.87



### 2019 CT6-V

Cadillac's large sedan received the V treatment with the all-new Blackwing 550-hp twin-turbo V-8, but production ended almost as soon as it began.

■ 3.7 ■ 12.1 ■ 0.90



### 2009 CTS-V

Available first as a sedan and two years later as a coupe or a wagon, too, the second-gen CTS-V had a 556-hp supercharged V-8 underhood and was a four-time 10Best winner. It also blitzed the Nürburgring in under eight minutes, nabbing the then record for factory sedans.

■ 3.9 ■ 12.2 ■ 0.89  
(automatic sedan)



### 2020 CT4-V/CT5-V

The ATS and CTS were renamed CT4 and CT5, and the Vsport subbrand became known as V.

*Acceleration times for pre-2014 models adhere to our old rollout rule of 3 mph.*

189 mph, and analysis shows that the CT5's extensive aerodynamic work is sufficient to exceed the CTS-V's 200-mph top speed. Soon Cadillac will conduct a real-world validation run to prove it.

The Blackwings aren't just more capable than their forebears—they're more refined, too. The decade-old second-gen CTS was the first V to deliver performance and everyday livability in equal measure. That desirable duality continues to define the brand. Cadillac says these new sedans ride even better than the previous Vs, which already excelled in that department. Contributing to the improvement are the Blackwings' fourth-generation magnetorheological dampers, which can make changes in just 20 milliseconds, four times quicker than before. That allowed Cadillac to give both cars considerably stiffer suspension bits and tuning, while the CT5 is nearly a third more torsionally resolute.

As for how the cars sound: "It's not just that we've made them louder," Vivian tells us. "They're quieter and louder." For the first time the valving in the exhaust can be varied continuously over a range of adjustment, rather than simply opened or closed.

The interiors benefit from racy yet refined touches such as carbon-fiber accents on the CT5's optional performance seats and a V-specific steering wheel. The thick-rimmed leather-wrapped wheel has a button to access a customizable V driving mode; a switch to select GM's excellent Performance Traction Management settings, which help wring out the most from both driver and car on track; and a serialized plaque identifying the car's model, transmission, and position in the build sequence. The available Performance Data Recorder is back again to capture for posterity video, audio, and data of the driver's highest highs and lowest lows.

The new V cars also bend the air to their will with greater effect, partially as a result of GM's recently overhauled wind tunnel, which now includes a rolling-road surface for more realistic results. Even the smallest details, like the radii of the openings in the grille mesh, are optimized to route practically every molecule to the right place. The team considered more complicated scenarios, too, such as airflow to the brakes when the car is turning slightly, in recognition of the fact that not all on-track braking happens in a straight line. The underbody aero work reduced front-end lift to the point that neither car needs a hood vent like the previous iterations.

Both Blackwings wear Michelin Pilot Sport 4S tires developed specifically for them: Cadillac put the CT4 in the same sizes as before (255/35ZR-18 front and 275/35ZR-18 rear) but gave the CT5 wider tires (275/35ZR-19 front and 305/30ZR-19 rear) than its predecessor. Vivian tells us the tires primarily employ R-compound rubber, so grip levels may be closer to Michelin's more extreme Cup-series tires.

The first 250 reservations for the \$84,990 CT5-V Blackwing sold out in seconds, and those for the \$59,990 CT4-V Blackwing, in minutes. Cadillac will eventually offer more beyond that initial allotment. For the love of Detroit, Bob Lutz, and driver involvement, get the manual. These are going to be keepers. ■





THE CT4-V BLACKWING'S OPTIONAL SPORT STEERING WHEEL PUTS THE CUSTOMIZABLE V MODE AT THE DRIVER'S FINGERTIPS. A LARGER REAR SPOILER COMES WITH ONE OF TWO CARBON-FIBER AERO PACKAGES. FORGED 18-INCH WHEELS BUCK THE BIG-WHEEL TREND.



# ICEBERG, RIGHT AHEAD!

ASTON MARTIN'S FIRST SUV STEERS  
THE COMPANY AWAY FROM  
CERTAIN DISASTER.

*By Tony Quiroga  
Photography by James Lipman*









A

ston Martin is building an SUV. That statement would likely confuse and upset past owners of the 108-year-old British company. Utility is anathema to an Aston Martin, they'd scoff. They'd wax poetic about beauty, grace, passion, and performance, then casually slip in that the company has a Royal Warrant of Appointment from His Royal Highness Prince Charles Philip Arthur George, Prince of Wales, Knight of the Garter . . . Knight Grand Cross of the Order of the Bath, Order of Merit . . . Earl of Chester, Duke of Cornwall, Duke of Rothesay, Earl of Carrick, Baron of Renfrew, Lord of the Isles, and Prince and Great Steward of Scotland.

Far less impressive than that title is the storied brand's seven bankruptcies. Keeping the HMS *Aston* away from an eighth iceberg is why the new DBX SUV exists: A sports-car company, particularly one as tiny as Aston Martin, is slopping the trough for SUV-hungry customers. It's a proven gambit that has secured the fortunes of Bentley, Porsche, and Lamborghini. Last year Aston actually came perilously close to another bankruptcy. Just before the DBX entered production, the company nearly ran out of money, sending the stock price to an ominous low of

\$6.66. A massive cash infusion from investors kept the brand afloat until the DBX could roll into showrooms.

A lot more is riding on the DBX's wide Pirelli P Zero PZ4 tires than just Aston's future. And we mean that literally, as this SUV weighs more than two and a half tons despite its aluminum spaceframe and body panels. It's about the size of a Porsche Cayenne Turbo, but even with all that alloy, it's only 20 pounds lighter than the German.

Creating a new platform is expensive, so it's no surprise that Aston didn't develop its own engine. Under the DBX's hood is a Mercedes-AMG-sourced twin-turbo 4.0-liter V-8. Before you say it's not cricket to fit a German engine in a British car, remember that the AMG V-8 is also available in the Vantage and





DB11, that Aston hasn't designed its own engine since the late '60s, and that the company's V-12 can trace its lineage back to a pair of Ford Duratec V-6s.

With its Mercedes-Benz nine-speed automatic transmission, the 542-hp DBX moves to 60 in 3.9 seconds and through the quarter in 12.4 at 114 mph. A sub-four-second time to 60 would have been ridiculously quick for an SUV a decade ago, but the competition has since gone nuclear. Lamborghini's Urus hits 60 in 3.1 seconds, the Cayenne Turbo S E-Hybrid and Tesla Model X P90D take 3.2, the Bentley Bentayga V8 can do it in 3.3, and the Maserati Levante Trofeo, 3.5. AMG selfishly keeps for itself the 603-hp version of the twin-turbo V-8, which allows the GLE63 S to run to 60 in 3.2 seconds. While the

DBX's shove isn't as hard as others', hideously illegal numbers just seem to appear in the 12.3-inch digital instrument cluster in a way no traffic-court judge will ever comprehend.

Aston pairs height-adjustable air springs with 48-volt active anti-roll bars that keep this 5128-pound brute flat in corners. And even though the beast rolls on 22-inch wheels, the ride is comfortable and free of crash and loud smacks. Drive the DBX like a luxury SUV and it exudes calmness and comfort; only 67 decibels enter the cabin at 70 mph. A double-walled front bulkhead keeps the engine's efforts subdued. The V-8 raises its voice to a rich-sounding 83 decibels at full throttle, but its exhaust won't trigger any neighborhood-association sanctions, provided you don't select Sport or Sport Plus mode and the \$2300 sport exhaust. In those more aggressive settings, the DBX's pipe section plays fortissimo, but it's still quieter than AMG-issimo.

Drive the DBX like one of the sports cars that shares its front-end styling and it responds by goading you into using more and more of the available grip. Quick steering (2.5 turns lock-to-lock) imparts a perceived nimbleness that belies the DBX's size and weight. Press hard into corners

**The interior smells just as rich as it looks here in Lords Red. Don't believe us? Scratch the picture and sniff for yourself.**



and you'll hear the stability-control system cycling individual brakes as it attempts to solve the many physics problems created by SUVs. The DBX's cornering limits are remarkably easy to explore on road, and there's likely a little more grip to be had than the 0.92 g we measured on the skidpad. In that test, the stability control inhibited the performance, even when we set it to its off position.

In most situations, the DBX's all-wheel-drive system sends 47 percent of the vehicle's torque forward, with the remainder heading rearward to the electronically controlled limited-slip differential. Almost 100 percent can flow into the rear axle, but the ministrations happening in the all-wheel-drive coupling are invisible to the driver. Kick the gas as much as you want—the system will figure it out and turn all 22.5 gallons of fuel into forward progress. Our need for speed resulted in 13 mpg, short of the 14-mpg city and 18-mpg highway EPA ratings.

The only part of this dancing-bear act that needs more practice involves the soft brake pedal. Aston fits the right hardware: Six-piston calipers clamp 16.1-inch rotors up front, and single-piston sliding calipers



**Plus** Aston-grade materials and beauty inside, an optimal balance of luxury and sportiness, may undo a financial crisis.

**Minus** Not as quick as rivals, unresponsive brake pedal, near \$200,000 price, may trigger an existential crisis.

**Equals** The lookout in the crow's nest that should keep Aston afloat.

pinch 15.4-inches out back. In our testing, the DBX's stops were fade-free, and it scrubbed 70 mph in a short 157 feet, but a vehicle this fast demands a firm brake pedal with reassuring initial bite. As you toe into the brakes, not enough happens, giving the impression that the DBX is too fast and heavy for them. The solution is to push down harder, which reveals the true power of the brakes—shoulder, meet seatbelt.

Your 180 grand buys a leather-lined interior screwed together with the care the British seem to expend only when they produce things in small quantities. The push-and-pull exterior door handles are shared with other Astons, as is the leather aroma inside. If you've never been in an Aston sports car—a strong possibility if you're buying a DBX, as

most customers are expected to be new to the brand—hold a Gucci belt up to your nose and you'll get the idea. Thick leather is stretched tight over the firm, bolstered front saddles, which look similar to what Aston fits in the DB11. Automakers don't usually put sports-car seats in SUVs because they aren't easy to get into and out of, but the DBX's are as effortless to slip into as broken-in moccasins. Plus, they work with the rest of the interior to cement the notion that you are in an Aston Martin—well, an Aston Martin with a horse-high view and a giant windshield.

Another Aston touchpoint that carries over to the DBX is the set of push-button transmission controls on the center console. Where you'd expect a shifter, there's a rotary knob that controls the 10.3-inch infotainment-system display. The easy-to-use system is borrowed from Mercedes-Benz, but the design is unique to the DBX. A standard 800-watt Harman/Samsung audio setup with 14 speakers provides sound so clear, you won't miss a shallow breath or lip smack from your favorite podcaster or Howard Stern Wack Packer.

The long 120.5-inch wheelbase gives rear-seat riders plenty of legroom. Considering this is an Aston Martin, discussing the 40/20/40 split-folding second-row seats, the 22 cubic feet of cargo space with the seats up, and the 54 cubes with them folded seems as strange as mentioning its 5940-pound towing capacity. Why does it feel like we're measuring the closet space and earthquake resistance of Fallingwater?

If only the DBX's styling had the impact of a Frank Lloyd Wright house. The DBX is attractive, but an SUV will never have the proportions or presence of an Aston sports car. Even a light squint will transform this vehicle into a Mazda or a Buick. Brand-identifying design cues in the nose and tail give it enough of a familial resemblance that it makes sense parked next to a Vantage in a showroom, but there's a certain amount of ignominy and desperation in playing to the rabble's thirst for these things. But that's the sort of hubris that nearly closed down Aston Martin seven times. Existential conundrums aside, the DBX pulls off being an authentic Aston Martin. Actually, it's perhaps better than most because this one will likely keep the lights on. 🇬🇧





# 2021 ASTON MARTIN DBX

**Price**  
**As Tested** ..... **\$195,586**

**Base** ..... \$179,986

**Vehicle Type:** front-engine, all-wheel-drive, 5-passenger, 4-door wagon

**Options:** DB Elegance package, \$4600; Indulgence package, \$3100; sport exhaust, \$2300; gloss-black wheels, \$2300; red brake calipers, \$1600; contrast stitching, \$1100; heated sport steering wheel, \$600

**Audio System:** satellite radio; USB, SD-card, and Bluetooth-audio inputs; Apple CarPlay interface; 14 speakers

## Engine

twin-turbocharged and intercooled V-8, aluminum block and heads

**Bore x Stroke** ..... 3.27 x 3.62 in, 83.0 x 92.0 mm

**Displacement** ..... 243 in<sup>3</sup>, 3982 cm<sup>3</sup>

**Compression Ratio** ..... 8.6:1

**Fuel Delivery:** direct injection

**Turbochargers:** BorgWarner BB02

**Maximum Boost Pressure** ..... 17.7 psi

**Valve Gear:** double overhead cams, 4 valves per cylinder, variable intake- and exhaust-valve timing and variable intake-valve lift, cylinder deactivation

**Redline/Fuel Cutoff** ..... 7000/7000 rpm

**Power** ..... 542 hp @ 6000 rpm

**Torque** ..... 516 lb-ft @ 2000 rpm

## Drivetrain

**Transmission:** 9-speed automatic

**Final-Drive Ratio** ..... 3.07:1

**All-Wheel-Drive System:** full time with an electronically controlled clutch-pack coupling and an electronically controlled limited-slip rear differential

GEAR	RATIO	MPH PER 1000 RPM	MAX SPEED IN GEAR (rpm)
1	5.35	5.5	39 mph (7000)
2	3.24	9.0	63 mph (7000)
3	2.25	13.0	91 mph (7000)
4	1.64	17.9	125 mph (7000)
5	1.21	24.1	169 mph (7000)
6	1.00	29.2	181 mph (6200)
7	0.87	33.8	
8	0.72	40.7	
9	0.60	48.6	

## Chassis

aluminum spaceframe with a rubber-isolated rear subframe

**Body Material:** aluminum stampings and fiberglass-reinforced plastic

## Steering

rack-and-pinion with variable electric power assist

**Ratio** ..... 14.4:1

**Turns Lock-to-Lock** ..... 2.5

**Turning Circle Curb-to-Curb** ..... 41.8 ft

## Suspension

**F:** ind; 1 control arm, 1 lateral link, and 1 diagonal link per side; air springs; 5-position electronically controlled dampers; active anti-roll bar **R:** ind; 1 control arm, 1 lateral link, 1 diagonal link, and a toe-control link per side; air springs; 5-position electronically controlled dampers; active anti-roll bar

## Brakes

**F:** 16.1 x 1.5-in vented and grooved disc, 6-piston fixed caliper

**R:** 15.4 x 1.3-in vented and grooved disc, 1-piston sliding caliper

**Stability Control:** partially defeatable

**Wheel Size** ..... **F:** 10.0 x 22 in **R:** 11.5 x 22 in

**Wheel Construction:** cast aluminum

**Tires:** Pirelli P Zero PZ4 **F:** 285/40ZR-22 (110Y) A8A **R:** 325/35ZR-22 (114Y) A8A

## Exterior Dimensions

**Wheelbase** ..... 120.5 in

**L/W/H** ..... 198.4/78.7/66.1 in

**Track, F/R** ..... 66.9/65.5 in

## Off-Road Dimensions

**Approach Angle** ..... 22.2-25.7°

**Break-Over Angle** ..... 15.1-18.8°

**Departure Angle** ..... 24.3-27.1°

**Ground Clearance** ..... 6.7-9.3 in

**Water Fording** ..... 17.9-19.7 in

## Interior Dimensions

**Passenger Volume, F/R** ..... 57/52 ft<sup>3</sup>

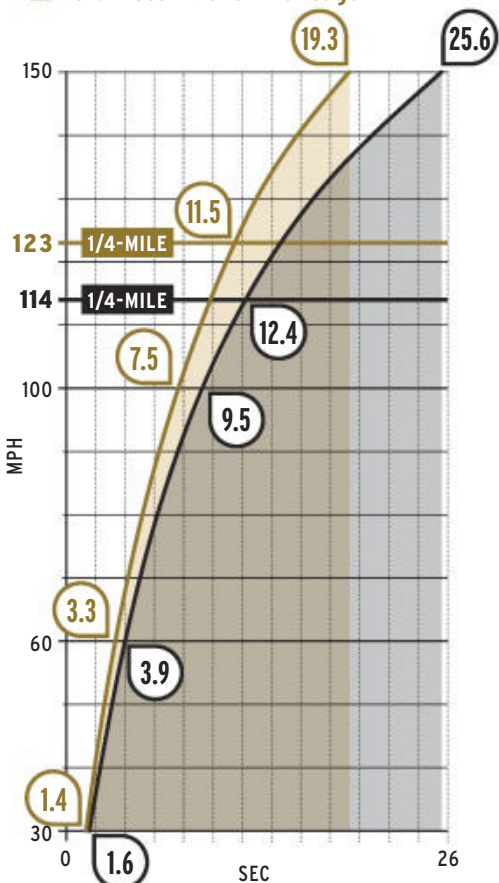
**Cargo Volume behind F/R** ..... 54/22 ft<sup>3</sup>

## TEST RESULTS

### Acceleration Compared

■ 2021 Aston Martin DBX

■ 2019 Aston Martin Vantage



Results in graph omit 1-ft rollout of 0.3 sec.

### Acceleration Continued

**Rolling Start, 5-60 mph** ..... 4.7 sec

**Top Gear, 30-50 mph** ..... 2.7 sec

**Top Gear, 50-70 mph** ..... 3.4 sec

**Top Speed (mfr's claim)** ..... 181 mph

### Handling

**Roadholding, 300-ft Skidpad** ..... 0.92 g

**Understeer:** minimal

### Braking

**70-0 mph** ..... 157 ft

**100-0 mph** ..... 310 ft

**Fade Rating:** none

### Weight

**Curb** ..... 5128 lb

**Per Horsepower** ..... 9.5 lb

**Distribution, F/R** ..... 52.7/47.3%

**Towing Capacity** ..... 5940 lb

### Fuel

**Capacity** ..... 22.5 gal

**Octane** ..... 91

### C/D Fuel Economy

**Observed** ..... 13 mpg

### EPA Fuel Economy

**Comb/City/Hwy** ..... 15/14/18 mpg

### Interior Sound Level

**Idle** ..... 46 dBA

**Full Throttle** ..... 83 dBA

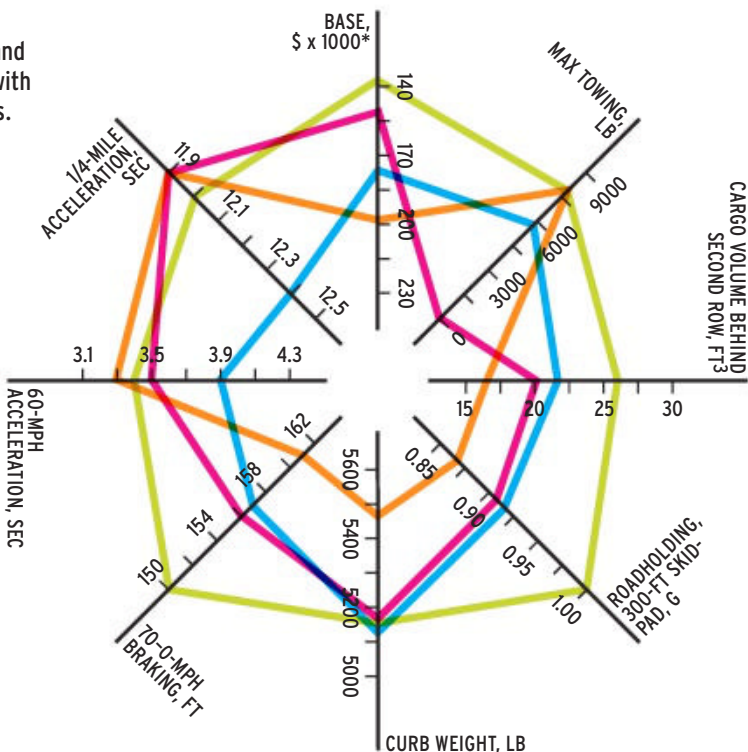
**70-mph Cruising** ..... 67 dBA

## COMPETITORS

Despite competitive power and weight, the DBX can't hang with the pack in acceleration runs.

- Aston Martin DBX**  
542-hp 4.0-L V-8, 9-sp auto
- Bentley Bentayga V8**  
542-hp 4.0-L V-8, 8-sp auto
- Maserati Levante Trofeo**  
582-hp 3.8-L V-8, 8-sp auto
- Porsche Cayenne Turbo**  
541-hp 4.0-L V-8, 8-sp auto

\*Includes performance-enhancing options.





# QUARANTINE TOYS



When the pandemic spread across the country early last year, vacations were canceled. Restaurants shuttered. Beaches and parks closed to the public. What could we do to chase away the oppressive dread of an invisible, omnipresent scourge? For people fortunate enough to remain employed, an unexpected answer emerged: Buy a boat. Or an ATV or an RV or some other motorized toy that allows us to have fun while social distancing. In February of last year, life was normal. By April, we all wished we owned a chain of stores called Jet Skis and Toilet Paper.

In defiance of 2020's general economic gloom, Americans bought 115,000 new powerboats in May and June, a 30 percent increase compared with sales from those months in 2019, according to the National Marine Manufacturers Association. The RV Industry Association says that November's 42,513 RV sales were the most ever for that month. And Can-Am saw side-by-side sales rise by about 30 percent in the third quarter. Clearly, a lot of people needed to get out of the house.

Including us. To see what all the fuss is about, we rounded up a selection of motorized funmakers and hit the road, trails, and water. Because nothing takes your mind off a pandemic like jumping a side-by-side over a 55-foot gap.

## JUMPMASTER ~ PROFESSIONAL DAREDEVIL TRAVIS PASTRANA SCHOOLS US IN THE ART OF AIRING IT OUT.



BIG AIR ~ BY EZRA DYER

Travis Pastrana shows up with coffee and doughnuts and then climbs his indoor rock wall and backflips into a foam pit. Then my kids and I strap into a four-seat Can-Am Maverick and he starts cranking Poison's "Nothin' but a Good Time" while driving around on two wheels. We drive out into the woods and launch off increasingly preposterous ramps that seem to point straight into the sky. Later he'll teach me how to pull

a wheelie on a dirt bike, and one of my kids will ride in his Subaru WRX STI as he rips donuts, and I'll ride with him in a Maverick while he rips even faster donuts. Neighbors will show up and start throwing axes, and the kids will race Crazy Carts in the garage and do corkscrew flips on the trampoline. I'm sorry to rush the exposition, but a lot of things happened at this sprawling action-sports playground known as Pastra-

naland, and I still have to get to the gap jump where I nearly had what Pastrana would label "a bad day."

The occasion of my visit: Can-Am recently partnered with industry giant Fox to introduce adaptive dampers called Smart-Shox that adjust both compression and rebound on the fly. Pastrana drives Can-Am side-by-sides, so we figured he could give me some sort of driving lesson at Pastranaland. I





Kodak EPR 3201







FROM LEFT: FULL DROOP, FULL COMPRESSION, AND A THUMBS UP FROM TRAVIS PASTRANA. THAT'S WHAT SUCCESS LOOKS LIKE.

asked if I could bring my boys, ages eight and 10, because they idolize him and everything *Nitro Circus*—Pastrana's *Jackass*-on-wheels stunt show. And he said sure, because Travis Pastrana rules. That's about as fine grained as we got with the planning, so I never thought I'd attempt a launch that would warrant midair narration by Waylon Jennings.

Pastranaland is laced with trails and ramps, one of which sends you over, or into, a 55-foot-wide gap. Go too slow and you'll miss the landing zone and crash. Go too fast and you'll miss the landing zone and crash. "I think 47 mph is a good speed," Pastrana says after a recon run. "Go 47 or 50, you're fine. But if you go 40 . . . it'll just be like getting in a car crash at 40." Well, if that's all, let me give it a try!

My steed for this stunt is a Maverick X3 X RS Turbo RR with Smart-Shox. It has a 195-hp turbocharged inline-three and a hilarious 22.0 inches of suspension travel up front

and 24.0 inches at the rear. The ramp makes up the last part of a dead-end trail in the woods, so you have to drive a loop to get a running start at it. "You don't decide whether or not to hit the ramp when you're on it," Pastrana says. He gestures back toward the woods. "You decide way out there. Once you're heading for the ramp, you're doing it."

Drive straight, 47 mph—I do that every day. As I round the corner and the ramp looms into view, I goose it to 45. I see 47 mph before bringing my eyes up from the speedometer to make sure I square up the ramp. Then weightlessness. The view ahead is sky. Followed by—uh oh—dirt. I'm way nose down. There's a brief jolt upon touchdown, but it doesn't feel like any big deal. Nailed it! I circle around and Pastrana and his *Nitro Circus* buddy, Hubert Rowland, are grimacing. Turns out I used every bit of that front travel. "You almost didn't make it," Pastrana says. I tell him I

hit 47 mph and held a steady throttle on the ramp. "You've got to give it throttle on the ramp," he replies. "The incline slows you down. Want to try it again?"

The next time around, I goose it on the ramp, doing maybe 50 mph. The touchdown on the opposite side is level and true—did we just land? That felt like driving over an invisible bridge. All hail trophy-truck suspension and Newtonian physics.

"Want to do it again?" Pastrana asks. I say, "Sure, one more time." "No!" he yells. "We never say 'one more time'!" He's absolutely right, and I should know better. Bad things happen when you say "one more time." "Say you're going again or doing it two more times," Pastrana says. "Or we could just say you nailed it. You got the shot. So why do it again?"

I pull over, kill the engine, and unbuckle my harness. When Travis Pastrana suggests it's time to chill out, you take the hint.

## How to Pull a Dirt-Bike Wheelie

AS TAUGHT BY TRAVIS PASTRANA



**1**  
Position yourself with your weight back on the seat.



**2**  
Give the bike a healthy dose of throttle while pulling on the bars, lifting the front wheel into the air. (If you've got a clutch, you can pop it to enhance the effect.)



**3**  
Once up, cover the rear brake with your right foot. If you feel like you're going over backward, drag the rear brake to bring the front tire down. You can use your toe for this or—if you've broken your ankle a bunch and your foot doesn't like to rotate that way—your heel.



**4**  
Work the throttle to keep the front wheel up. It's easier on a slight uphill, tougher going downhill.



**5**  
Don't run into the people throwing axes.



# RIDE THE WAVE ~ A PERSONAL WATERCRAFT TRANSFORMS LAKES AND OCEANS INTO YOUR PLAYGROUND.



WATERSPORTS ~ BY EZRA DYER AND ERIC TINGWALL

## Yamaha WaveRunners

Personal watercraft (PWC) are joyful machines. They exist purely for goofing around on the water, and even a 35-mph rental unit will displace your worries with rambunctious entertainment. But faster is always better, and Yamaha's 1.8-liter inline-four WaveRunners represent the penultimate level of PWC performance. Above them lie supercharged models, and below them . . . most everything else. So the question is: Do you really want more power than this?

It won't make much difference at the top end. Both the \$12,549 GP1800R HO and the \$1000-pricier VX Limited HO we sampled max out at 62 mph, close to the 65-mph governor that all PWC manufacturers

impose. And they get to that top speed in a hurry. Unless you're on a quiet lake, your personal speed limit will likely be determined by physical stamina rather than outright horsepower. Both hulls will skip across chop, but throw a few wakesurf boats into your local waterway and it won't matter if you've got 300 horsepower: At 60 mph, there's a certain size wave you don't want to hit.

As for the differences between these two, the three-person Limited is more luxurious (ours came with a wonderfully preposterous stereo) while the GP1800R is harder edged, carving turns that might toss passengers overboard. Either one is a blissful means of escape, the offshore speedboat experience distilled to a seat and a set of handlebars.

## Sea-Doo Wake 170

Think car prices are crazy? Wait until you see what goes on in the boating world, where people take out 20-year loans to buy wakeboarding boats priced like houses with the monthly payments of a car.

If you're not falling for that mind trick, there is a financially sane alternative to making your wave-jumping action-hero fantasies a reality. The \$12,299 Sea-Doo Wake 170 costs less than the cheapest new car you can buy, makes 73 percent more power, and is way more fun when you launch it into a lake. Sea-Doo bills the Wake as the only personal watercraft designed specifically for tow sports. It has a rack for carrying a wakeboard, an optional 100-watt Bluetooth audio

system for blasting Limp Bizkit, and a telescoping pylon that raises the tow-rope mounting point to help wakeboarders get bigger air.

In Sport mode, the 170-hp Wake accelerates hard with hair-trigger responses, which is why Sea-Doo also includes a Ski mode that delivers gentle starts for the person at the other end of the rope. The Wake makes a predictably small wave compared with the splash of a six-figure boat with ballast tanks. You won't get monster-truck hang time jumping the Wake's wake, and no one will be riding the Sea-Doo's surf without a rope. But the Wake 170 gets you on the water for a fraction of the cost of most alternatives, and no matter the size of the wave, wakeboarding always beats swimming.





# GETAWAY CAR

## ~ THE CAMPERIZED

### MERCEDES-BENZ METRIS

#### GETAWAY SEATS FIVE,

#### SLEEPS FOUR,

#### AND FACILITATES LIGHT

#### ADVENTURE.



CAMPFIRE ~ BY ANNIE WHITE

If you're going to have an adventure, you'll want to be familiar with sunk-cost bias. It's the idea that if you've spent a lot of time, money, or energy trying to accomplish a goal, you'll be inclined to keep at it even if quitting is the wisest move. You know Green Boots, the unidentified frozen corpse that is a landmark on the northeast route to the summit of Mount Everest? That's about the worst possible outcome when you've got too much invested to throw in the towel. I've never been on the kind of adventure that could end with my dead body getting its own Wikipedia page, but I've tried to absorb the message.

Last year presented plenty of opportunities for well-considered bailing, including the Thanksgiving dinner my family was contemplating. After weeks of waffling, I decided to err on the side of cau-

tion, coronavirus-wise. I called my mother (who was not surprised), secured the Mercedes-Benz Metris Getaway from the C/D short-term fleet, and started looking for the nearest place where I could count on warm, sunny weather. The notion: Spend the holiday weekend hiking with my dog, Lentil. And the Getaway—a camperized version of the Metris with a pop-top roof bed, a flat-folding rear bench, and an integrated table—would take us wherever we wanted to go in comfort.

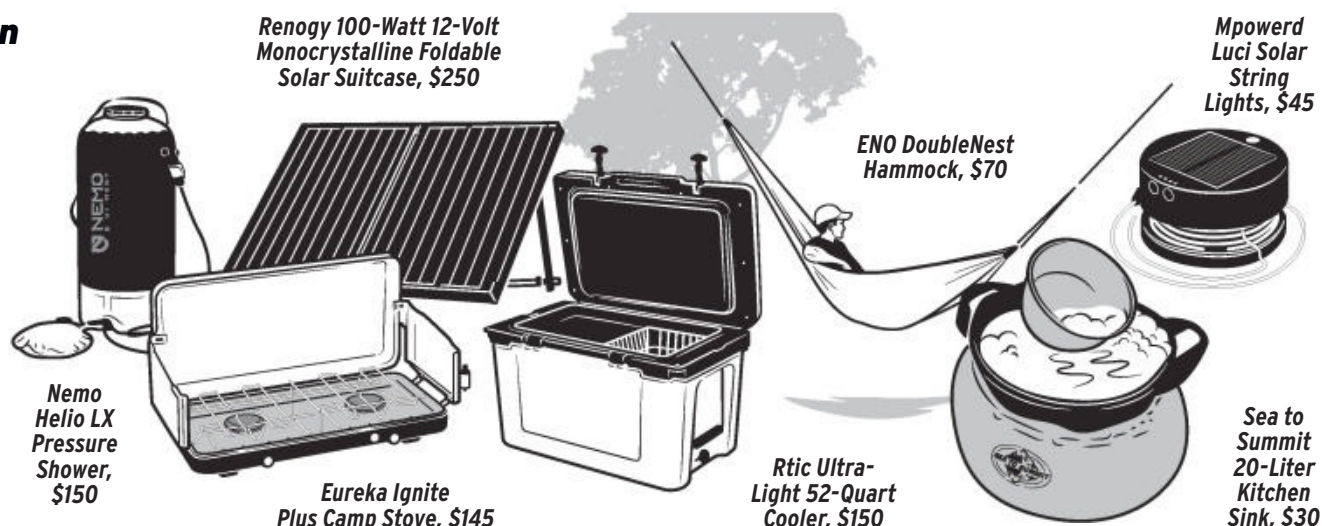
I eventually settled on Sarah's Creek Campground in northeast Georgia. I left Michigan much later than planned and, after wrestling the rear seat into a bed, spent the first night of the trip in a rest-stop parking lot. I woke the next morning with grains of sand in my eyes, the result of sharing the bed with Lentil and his dirty paws.

We'd been on the road for a few hours the next day when the low-fuel warning light came on. Previously, I'd driven 60 miles with that light on before getting gas, so I wasn't worried. My confidence waned when, 40 miles later, the engine went silent and the dash lit up. A vision of me trudging down the highway lugging fuel cans with Lentil in tow flashed in my mind's eye. But I was only a quarter-mile from an exit that promised a gas station, so I stayed off the brakes, turned on the hazards, and crossed my fingers. I navigated the exit ramp, made a right turn, passed straight through an intersection—mercifully, the light was green—and sailed into the station.

The Getaway has a smooth ride for a van, and the steering is as quick as you'd ever want it to be in a tiny RV. Acceleration from the 208-hp

### In a Van down by the River

Living in a vehicle might seem like a cheap way to explore the country, but influencer-approved rolling palaces typically run six figures. With this gear, you can live the same lifestyle with the van, SUV, or wagon you already own and still be able to afford food when you're done.







Kodak EPR 3201

turbocharged 2.0-liter inline-four is, yes, a little lackluster, and the seven-speed automatic transmission of our pre-production 2019 model stumbled once or twice over the mountains. (For 2021, the Getaway gets a nine-speed.)

But this van is an excellent road-trip vehicle. You can buy a Metris Getaway starting at \$61,975 from the factory or order a custom one from upfitter Peace Vans. For a camper with a kitchen, an awning, and an auxiliary heater, figure at least \$90,000. Ours had no kitchen but still rang in at \$83,871 due in part to an aftermarket infotainment system and lift kit.

When we rolled into Sarah's Creek just before dark, the best campsite was still available. I unfurled the optional bolt-on awning and opened the Getaway's pop-up roof bed. There's no ladder, so I stood on the swiveling front seats and lifted myself up onto the bed like I was climbing out of a swimming pool.

The next morning I drove to the nearest town and located a promising hiking trail. The trail-

#### THE NUMBERS

**Vehicle Type:** front-engine, rear-wheel-drive, 5-passenger, 4-slugger, 4-door camper van  
**Base** ..... \$61,975  
**Engine:** turbocharged and intercooled DOHC 16-valve inline-4, aluminum block and head, direct fuel injection  
**Displacement** ..... 122 in<sup>3</sup>, 1991 cm<sup>3</sup>  
**Power** ..... 208 hp @ 5500 rpm  
**Torque** ..... 258 lb-ft @ 1250 rpm  
**Transmission:** 9-speed automatic  
**Dimensions**  
• **Wheelbase** ..... 126.0 in  
• **L/W/H** ..... 202.4/75.9/78.0 in  
• **Curb Weight** ..... 5200 lb  
**Performance (C/D est)**  
• **60 mph** ..... 8.7 sec  
• **1/4-Mile** ..... 16.9 sec  
• **Top Speed** ..... 100 mph  
**EPA Fuel Economy**  
• **Comb/City/Hwy** ..... 19/18/22 mpg

head was several miles down an unmaintained dirt switchback that climbed to the top of a small mountain. I drove slowly and pulled over once to let an exuberant dirt biker pass. Less than a mile from my destination, I came to a sharp left turn that coincided with a steep hill and perhaps 50 feet of road that may as

well have been purpose-built to test axle articulation.

Whenever I encounter a sticky situation while traveling, I ask myself, "What's the worst that could happen, Green Boots?" This time I figured the worst-case scenario was that the Getaway, with its low ground clearance and long, nonathletic body, would fail to navigate the bumps or the hill or the loose gravel and would get stuck or slide off the road. I hadn't had a cell signal for miles, so I would then have to abandon the vehicle and hike down to a place where I could call for help.

Calculations made, I executed a many-point turn and drove back to the main road. Half an hour away I found a different trailhead, where Lentil made his first tracks on the Appalachian Trail. Our trip continued, but by this point, I'd reached an understanding with the Getaway. It would give me the freedom to roam wherever I pleased without worrying about where I would lay my head at night, as long as I would stop when it said when, no matter how much I wanted to press on.



# GROUND GAMES ~ THE RIGHT TOY LETS YOU EXPERIENCE A ROAD OR TRAIL WITH FRESH EYES.



EARTH ROAMERS ~ BY EZRA DYER

## Honda Monkey

The Monkey is the Honda Grom's retro naked mini-moto counterpart. If that sentence means nothing to you, let's explain it this way: The Monkey is a small motorcycle with minimal bodywork, a 125-cc fuel-injected engine, and a four-speed manual transmission. With its 12-inch wheels, it looks like an overgrown minibike, but the Monkey is street legal and capable of 60 mph (with a tail wind). Most motorcycles are drenched in menace, but the Monkey doesn't take itself too seriously. The digital instrument cluster blinks out a cartoonish monkey face when you turn the key, and the color pictured here is Banana Yellow. There's a bit of a dual-sport vibe, and the

wee Honda is happy cruising dirt roads—knobby tires and skid plates are available from the aftermarket if you want to tackle more serious trails. In stock form, the Monkey can hit 55 mph on a flat road, but it might pull only high 40s if you encounter a hill or a head wind. But add a handful of bolt-on engine mods and it'll break 70 mph, enough to unlock a daring sprint down the highway.

The Monkey is a throwback, not only to the original Honda version (which began as an amusement-park ride in Japan in the 1960s) but to the legions of small-displacement bikes that taught most of us how to ride. Every ride takes you back to the first time you twisted a throttle and set off on two wheels. Yeah, it's a toy. But it's also a time machine.

## Yamaha Wolverine

The Yamaha Wolverine RMAX2 1000 XT-R is good at everything. With a 108-hp 1.0-liter inline-two and more than a foot of suspension travel, it can hustle on fast trails. The knobby 30-inch tires, Warn winch, and 13.8 inches of ground clearance make it capable in mud. The two-speed transfer case, locking front differential, and Crawl mode are proper tools for serious rock climbing. And the stubby tilting utility bed is rated to carry 600 pounds, while the hitch below the tailgate is good to tow 2000 pounds. Hey, is this thing actually useful?

We're disappointed that Yamaha didn't give the Wolverine the five-speed sequential manual transmission that it offers in the YXZ1000R side-by-side,

but the RMAX's continuously variable automatic is among the best of its genre. Yamaha eliminates CVT belt slippage by placing the engagement clutch upstream of the transmission. Besides providing decisive launches, this allows for a 10-year drive-belt warranty. On the rocky trails of North Carolina's Uwharrie National Forest, we had no concerns about breaking a belt.

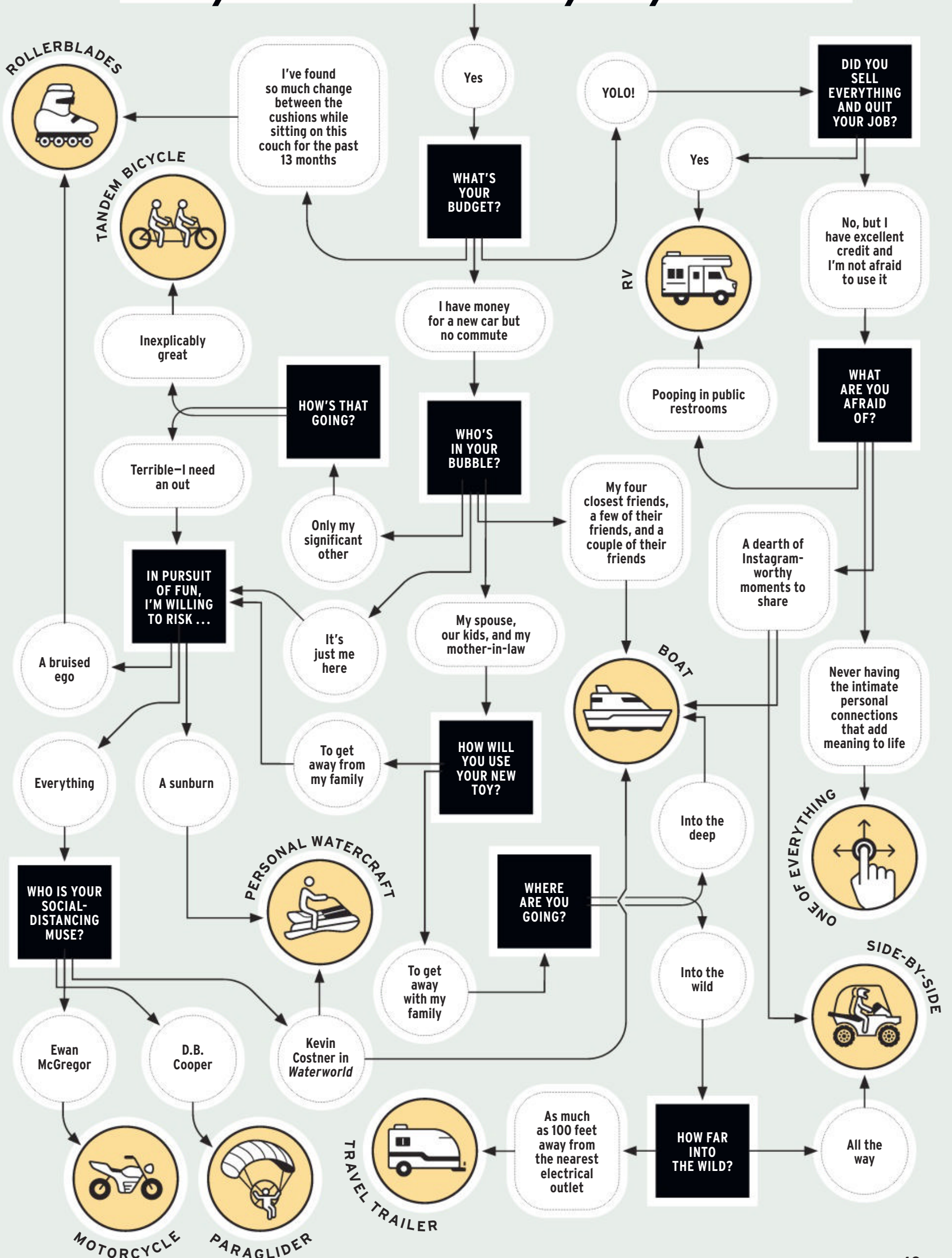
We used the RMAX strictly for fun, but we can imagine using it to haul bales of hay out to some remote livestock on the back 40—and having a blast on the return. There's also a four-passenger version with folding rear seats in the bed. If you don't already own a ranch, the Wolverine will have you browsing Zillow listings in Montana.





# THE CAR AND DRIVER QUARANTINE TOY PICKER

*Do you need a new toy in your life?*





# SPL

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CAN A SINGLE VEHICLE  
SIMULTANEOUSLY CAPTURE  
THE BRONCO ETHOS  
AND CONQUER THE SUBURBS?  
WE PIT THE FORD BRONCO  
SPORT AGAINST TWO  
BOOKENDS TO SEE WHERE  
IT LANDS ON THE  
COMPACT-SUV SPECTRUM.

~

*By Joey Capparella*

*Photography by Marc Urbano*









# it's

NOT ALWAYS THE PRODUCT ALONE THAT COMPELS PEOPLE TO LINE UP OUTSIDE THE APPLE STORE FOR THE LATEST IPHONE. THE IDEA OF BEING THE FIRST TO GET YOUR HANDS ON THE NEWEST, HOTTEST THING CAN BE NEARLY AS ENTICING AS THE SHINY DEVICE ITSELF.

That proved to be true for the new Ford Bronco Sport, which sold out of its limited run of First Edition models even though it's not the Bronco everyone is most excited for. A smaller unibody crossover stablemate to the body-on-frame off-roader that won't arrive for a few more months, the Bronco Sport already appears to be a hit. These things are thick on the ground near our Michigan headquarters, and they attract plenty of attention.

We needed to find out if the baby Bronco is just a cheap way of capitalizing on the Bronco mania that's currently

sweeping the nation or if it's something worth lining up for on its own. That meant pitting it against other compact SUVs, which, if you haven't heard, now make up the bestselling segment of the market.

Ford sent a Badlands model as its representative. Unlike lesser trims, which come with a three-banger, the Badlands has a 250-hp turbocharged 2.0-liter inline-four as well as a more sophisticated all-wheel-drive system, tow hooks, and additional drive modes. At \$36,300, our Bronco Sport Badlands was missing the Badlands pack-





We assembled this trio because the Mazda is the best in the class, the Jeep is the most rugged, and the Ford is the newcomer aiming to beat them both.

	2021 Ford Bronco Sport Badlands 4x4	2021 Jeep Cherokee Trailhawk 4x4	2021 Mazda CX-5 Signature AWD
Base/As Tested	\$34,315/ <b>\$36,300</b>	\$37,045/ <b>\$42,525</b>	\$38,680/ <b>\$39,400</b>
<b>Dimensions</b>			
Wheelbase	105.1 in	107.1 in	106.2 in
Length/Width/Height	172.7/74.3/71.4 in	182.9/74.9/67.8 in	179.1/72.5/65.3 in
Track, F/R	63.4/62.8 in	63.6/63.5 in	62.8/62.8 in
Passenger Volume, F/R	<b>56/50</b> ft <sup>3</sup>	52/49 ft <sup>3</sup>	53/49 ft <sup>3</sup>
Cargo Volume behind F/R	<b>61/29</b> ft <sup>3</sup>	55/26 ft <sup>3</sup>	60/ <b>31</b> ft <sup>3</sup>
Approach Angle	<b>30.4°</b>	29.9°	18.2°
Break-Over Angle	20.4°	<b>22.9°</b>	18.2°*
Departure Angle	<b>33.1°</b>	32.2°	24.8°
Ground Clearance	<b>8.8 in</b>	8.7 in	7.5 in
Water-Fording Depth	<b>23.6 in</b>	19.0 in	16.5 in*
<b>Towing</b>			
Max/As Tested	2200/2200 lb	<b>4500/4500 lb</b>	2000/2000 lb
<b>Powertrain</b>			
Engine	turbocharged DOHC 16-valve inline-4 122 in <sup>3</sup> (1999 cm <sup>3</sup> )	DOHC 24-valve V-6 198 in <sup>3</sup> (3239 cm <sup>3</sup> )	turbocharged DOHC 16-valve inline-4 152 in <sup>3</sup> (2488 cm <sup>3</sup> )
Power, hp @ rpm	<b>250 @ 5500</b>	<b>271 @ 6500</b>	<b>250 @ 5000</b>
Torque, lb-ft @ rpm	277 @ 3000	239 @ 4400	<b>320 @ 2500</b>
Redline/Fuel Cutoff	6500/6500 rpm	<b>6800/6800 rpm</b>	6300/6000 rpm
lb per hp	<b>14.9</b>	16.2	15.2
<b>Driveline</b>			
Transmission	8-speed automatic	9-speed automatic	6-speed automatic
Driven Wheels	all	all	all
Final-Drive Ratio:1	3.81	3.52 (2.92 Lo)	4.41
<b>Chassis</b>			
Suspension	<b>F:</b> struts, coil springs, anti-roll bar <b>R:</b> multilink, coil springs, anti-roll bar <b>F:</b> 12.1-in vented disc <b>R:</b> 11.9-in disc	<b>F:</b> struts, coil springs, anti-roll bar <b>R:</b> multilink, coil springs, anti-roll bar <b>F:</b> 13.0-in vented disc <b>R:</b> 12.6-in disc	<b>F:</b> struts, coil springs, anti-roll bar <b>R:</b> multilink, coil springs, anti-roll bar <b>F:</b> 12.6-in vented disc <b>R:</b> 11.9-in disc
Brakes	fully defeatable, traction off	fully defeatable, traction off	fully defeatable, traction off
Stability Control	Falken Wildpeak A/T AT3W 235/65R-17 104H M+S	Firestone Destination A/T P245/65R-17 105T M+S	Toyo A36 P225/55R-19 99V M+S
Tires			
<b>TEST RESULTS</b>			
<b>Acceleration</b>			
30 mph	<b>2.0 sec</b>	2.6 sec	2.1 sec
60 mph	<b>5.9 sec</b>	<b>7.6 sec</b>	6.1 sec
100 mph	17.3 sec	21.8 sec	<b>16.9 sec</b>
110 mph	<b>22.2 sec</b>	33.2 sec	22.3 sec
1/4-Mile @ mph	<b>14.5 sec @ 93</b>	<b>15.8 sec @ 88</b>	<b>14.7 sec @ 94</b>
	Results above omit 1-ft rollout of 0.3 sec.	Results above omit 1-ft rollout of 0.3 sec.	Results above omit 1-ft rollout of 0.3 sec.
Rolling Start, 5-60 mph	<b>6.5 sec</b>	7.9 sec	6.6 sec
Top Gear, 30-50 mph	3.3 sec	3.8 sec	<b>3.2 sec</b>
Top Gear, 50-70 mph	<b>4.3 sec</b>	5.6 sec	4.6 sec
Top Speed	125 mph (gov ltd)	114 mph (gov ltd)	<b>130 mph</b> (gov ltd)
<b>Chassis</b>			
Braking, 70-0 mph	<b>163 ft</b>	183 ft	167 ft
<b>Weight</b>			
Curb	<b>3733 lb</b>	4377 lb	3809 lb
Distribution, F/R	57.7/42.3%	57.8/42.2%	58.4/41.6%
<b>Fuel</b>			
Capacity/Octane	15.7 gal/93	<b>15.9 gal/87</b>	15.3 gal/93
EPA Comb/City/Hwy	23/21/26 mpg	21/18/24 mpg	<b>24/22/27 mpg</b>
C/D 500-mi Trip	20 mpg	<b>17 mpg</b>	<b>21 mpg</b>
<b>Practical Stowage</b>			
No. of 9 x 14 x 22-in Boxes, Seats Up/Folded	<b>11/22</b>	7/19	9/ <b>23</b>
Length of Pipe	124.0 in	<b>130.0 in</b>	126.8 in
Largest Flat Panel, L x W	65.8 x 41.1 in	63.5 x 39.4 in	<b>66.6 x 41.4 in</b>
<b>Sound Level</b>			
Idle/Full Throttle	<b>38/73 dBA</b>	44/82 dBA	<b>38/76 dBA</b>
70-mph Cruise	69 dBA	68 dBA	<b>67 dBA</b>



age (we're confused, too) but did come with an optional set of all-terrain tires, aluminum wheels that look like steelies, and a bundle of driver-assistance features.

Serving as the first foil to the Ford is the Jeep Cherokee, one of the oldest vehicles in this class but also the most rugged. The Trailhawk version is outfitted with tow hooks, all-terrain tires, and a four-wheel-drive system. Loaded with option packages, this example stickered for \$42,525, which makes it the most expensive ute here. Its naturally aspirated 3.2-liter V-6 makes it the most powerful entrant, too, with 271 horses underhood. (It's also why we chose the Cherokee instead of the cheaper Compass Trailhawk, which boasts but 180 horsepower from an unboosted four-cylinder.)

**Jeep Cherokee** **Plus** Comfy ride, capable off-road, lots of features. **Minus** Sluggish V-6, lifeless steering, poor fuel economy. **Equals** A dated, confusing SUV that's compelling neither as a Jeep nor as a mainstream crossover.

Then we have the Mazda CX-5, which fits in with the others on a spec sheet but undoubtedly resides on a different end of the SUV spectrum. Sans rock-crawling aspirations, this sleek number is here simply because it is good. A reigning comparison-test champion and 10Best winner, it trades on sharp handling and a luxurious aura. While the Ford and the Jeep wear trim-level names evoking ATVs and hiking boots, the CX-5's Signature label sounds like a house wine from Costco. It includes all-wheel drive and a 250-hp turbocharged 2.5-liter inline-four, and ours rang up at \$39,400.

We headed to northern Michigan to see what these crossovers are made of—and we don't mean that in a down-and-dirty sense. While we did explore some remote, snow-covered byways, we mostly evaluated these three the

way people will actually use them: on paved roads, with the occasional off-pavement adventure thrown in for good measure. And we got stuck only once, oddly enough in the Jeep (our fault, not the Cherokee's).

### 3rd Place: The Jeep

The Cherokee is full of contradictions. It's the biggest on the outside but has the smallest cargo area. It's the most expensive by several thousand dollars but far from the most luxurious. And while Jeep hides a couple of fun Easter eggs inside—for instance, turn on adaptive cruise and, in the display, the car ahead is rendered as a WWII-era Willys—the design itself is uninspired. Shorn of the seven-slot grille and the Trailhawk's red tow hooks, chunky tires, and Trail Rated badges, it would look like any of those amorphous Brand X crossovers in an insurance commercial.

**The seven-year-old Cherokee is showing its age. Its V-6 is indolent, the interior materials are subpar, and the infotainment graphics are dated.**







**The Sport successfully channels the Bronco spirit whether you're looking at it or driving it, but it trades away some refinement that's missed on paved roads.**

The surly sound and creamy power delivery of the V-6 are charming, but the Cherokee's 4377-pound heft (644 pounds heavier than the lightest-in-test Bronco Sport) makes it the slowest competitor to 60 by a wide 1.5-second margin. The six was also thirstier than the turbo fours, averaging just 17 mpg during our time with it.

We enjoyed the Jeep's cushy ride on the freeway, and the Firestone Destination A/T tires were quieter than expected. But there's too much play in the numb steering, which not only dulls the Trailhawk's responses when cornering but also necessitates an annoying amount of course correction when traveling straight. Plus, the angle of the wheel itself made us feel as if we were driving a bus.

Poorly grained black plastic and cheap-feeling upholstery sour the interior, and the graphics in the gauge cluster and infotainment system look dated. We had no qualms with the simple operation of the optional 8.4-inch touchscreen, however, and the Cherokee's bevy of features—a panoramic sunroof, an automatic parking system, a heated steering wheel, and a highly adjustable driver's seat among them—offered some justification for its high price.

The Cherokee acquitted itself well in the snow, too, with decent grip and seamless four-wheel-drive engagement. It has the most comprehensive set of off-road tools here, including a low range and a locking rear diff. But people don't think Jeeps are cool just because of what's underneath. You can adorn a bland crossover with all the off-road goodies you want, but capability isn't the same as character.



**Ford Bronco Sport** **Plus** Gotta-have-it looks, eager handling, strong performance. **Minus** Cheap interior, noisy engine, uncomfortable seats. **Equals** The baby Bronco has a character all its own, and we like it despite its imperfections.

## 2nd Place: The Ford

Unlike the Jeep, the Ford has personality in spades. You'll never need to explain to your friends that this is just a car-based pretender to the Bronco throne. The Sport lives up to its boxy shape, round headlights, and blocky "Bronco" lettering on the grille.

It drives as cheerfully as it looks, too. The Sport is sprightly, with quick steering and eager responses that give it an endearing dynamic character to match its appearance. Although this crossover shares a platform with the Escape, Ford's tuning of the suspension and steering makes it feel more old-school body-on-frame than modern unibody, complete with a subtle side-to-side rocking motion that we're sure is intentional.



It's no surprise that the Bronco, as the lightest vehicle in the test, stopped shortest and accelerated quickest at the track. Its cargo hold is capacious even though the baby Bronco's body is several inches shorter than the others'. The Badlands model's torque-vectoring rear differential allows for some fun in the slippery stuff, helping to get a nice drift going if you happen upon a big, empty, snowy parking lot. And the handy bottle opener built into the liftgate had us lingering around the Ford even after the driving was done for the day.

So, what can't you do in the Bronco? Well, we couldn't get comfortable in the front seats; they are too narrow and have an awkwardly angled bottom cushion

that can't be adjusted. Combined with a bouncy highway ride and lackluster cabin isolation from the coarse and buzzy turbo four, the Bronco doesn't really know how to relax.

Ford tried to make the most of its pantry of materials inside, strategically using textured plastics and rubberized surfaces to convey a sense of durability, but the result looks and feels low rent. We also noticed several ill-fitting trim pieces and sharp molding in our pre-production unit. The available interior-upgrade package—which adds leather, additional seat adjustments, and nicer trim—likely would've improved the vibe. It also would've helped make up for our test car's dearth of equipment, as the Bronco Sport was the only vehicle here without expected niceties such as a sun-

roof, dual-zone climate control, and a power liftgate.

Even still, there's something that grabbed us about the Bronco: It may have flaws, but it's undeniably desirable. We appreciate its strong point of view, and we won't blame you if you really, really want one.

**Mazda CX-5** **Plus** Satisfying ride and handling, well-behaved engine, premium interior. **Minus** Clunky infotainment, soft brake pedal, not as comfortable off-road. **Equals** It takes more than tow hooks and knobby tires to make a great crossover.



### 1st Place: The Mazda

With the best driving experience and interior, the Mazda exudes an air of specialness that's rare at this price point. Its maturity and well-rounded nature are more than enough to earn it a decisive win. The precision baked into the CX-5's primary controls is a revelation in this group. We value the communicative steering both on road and off, and the linear throttle response means that the turbocharged 2.5-liter four's strong swell of torque is always on hand, er, foot right when you need it. While its

**The Mazda's polished road manners and upscale cabin set it apart from the Ford and the Jeep, making it the compact crossover we want to drive day after day.**







aggressive stability-control programming put the kibosh on any powdery antics, the all-wheel-drive Mazda has adequate ground clearance and will make it through a reasonable amount of adventuring unscathed.

There are many other reasons to like the CX-5 beyond its delightful dynamics. It has thoughtful, practical touches that aren't present on the other two, such as a 40/20/40 split-folding rear seat with release handles in the cargo area. We're not big fans of Mazda's infotainment system, which has poorly organized menus that can make even simple tasks difficult. But features such as a head-up display, a powered passenger's seat, and a 360-degree camera are pleasant surprises in a vehicle that costs under \$40,000.

All this nice stuff is presented inside a nice cabin, too. There's lots of leather and plenty of soft touch points, and even the hard plastics are sightlier than those in the Bronco Sport and Cherokee thanks to their grain-ing. Plus, it's hushed inside, with the CX-5 reporting the lowest-in-test noise level at a 70-mph cruise. Fuel economy was tops as well.

While Jeep and Ford were hard at work distilling the spirit of their rough-and-tumble 4x4s into these more digestible packages, Mazda found a way to capture the spirit of an Audi Q5 or BMW X3 for a whole lot less money. If you want a Wrangler or a Bronco, buy one of those. Otherwise, the CX-5 is still the crossover to beat. 🇺🇸

FINAL RESULTS																																								
Vehicle														Powertrain													Chassis										Experience		GRAND TOTAL	
DRIVER COMFORT														1/4-MILE ACCELERATION*													BRAKING*										FUN TO DRIVE			
ERGONOMICS														FLEXIBILITY*													STEERING FEEL													
REAR-SEAT COMFORT														FUEL ECONOMY*													BRAKE FEEL													
REAR-SEAT SPACE*														ENGINE NVH													HANDLING													
CARGO SPACE*														TRANSMISSION													RIDE													
TOWING CAPACITY*														SUBTOTAL													SUBTOTAL													
FEATURES/AMENITIES*														Powertrain													Experience													
FIT AND FINISH														1/4-MILE ACCELERATION*													BRAKING*													
INTERIOR STYLING														FLEXIBILITY*													STEERING FEEL													
EXTERIOR STYLING														FUEL ECONOMY*													BRAKE FEEL													
REBATES/EXTRAS*														ENGINE NVH													HANDLING													
AS-TESTED PRICE*														TRANSMISSION													RIDE													
SUBTOTAL														SUBTOTAL													SUBTOTAL													
Maximum points available														105													50										25		235	
1. Mazda CX-5														83													44										21		198	
2. Ford Bronco Sport														79													42										22		191	
3. Jeep Cherokee														81													38										18		176	

\*These objective scores are calculated from the vehicles' dimensions, capacities, rebates and extras, and/or test results.



# *Long-Term Test*

AFTER TRACKING EVERY FILL-UP,  
SERVICE, PROBLEM, COMPLAINT, DENT,  
AND DOG HAIR, CAR AND DRIVER  
PRESENTS THE 40,000-MILE EVALUATION.

– 2019 –

## GENESIS G70

POWER DYNAMICS. BY ANNIE WHITE



When Hyundai launched the Genesis luxury brand in 2016 with the S-class-wannabe G90, we were impressed but not enthused. Genesis had potential, but its debut vehicle and its follow-up act, the G80 mid-size sedan, stood out mostly for their value. Then came the G70, the first Genesis that wasn't essentially a rebadged Hyundai. It was a real star that catapulted the marque from the outer tier of automotive luxury subbrands into the white-hot center of the premium market. Last year the launch of the sumptuous GV80 crossover cemented Genesis's real-deal status. Or at least that's what should have happened. But we're still not sure most people know what Genesis is.

During the G70's 18-month stay in our stables, the general public's most common reaction to it was "What?" We heard it from friends, neighbors, strangers, parking-lot attendants, and even one particularly chatty highway patrol officer. People were interested in the G70, but when we told them it's a Genesis, most mistook that for the model name rather

**ARRIVAL**

JUNE 2019

**DEPARTURE**

DECEMBER 2020





"THERE'S SOMETHING SO APPEALING  
ABOUT A SMALL REAR-WHEEL-  
DRIVE SPORTS SEDAN, AND THIS IS A  
PARTICULARLY GOOD ONE."

—JOEY CAPPARELLA, SENIOR EDITOR





# Rants and Raves

The taut ride motions and progressive steering remind me of the brilliant E39-gen 5-series.  
 —RICH CEPPOS

The engine is occasionally nonlinear, with a surge or two. It sounds lame, too.  
 —TONY QUIROGA

This would be so much better with the V-6.  
 —MIKE SUTTON

Genesis should change the font for the controls. It's so generic and boring. Comic Sans would be an upgrade.  
 —K.C. COLWELL

After weeks of not leaving the house because of the shutdowns, the G70 reminded me how much I like to drive.  
 —NATHAN SCHROEDER

## 2019 GENESIS G70 2.0T

**Vehicle Type:** front-engine, rear-wheel-drive, 5-passenger, 4-door sedan  
**Base/As Tested** ..... \$35,895/\$45,090  
**Engine:** turbocharged and intercooled DOHC 16-valve inline-4, aluminum block and head, direct fuel injection  
**Displacement** ..... 122 in<sup>3</sup>, 1998 cm<sup>3</sup>  
**Power** ..... 252 hp @ 6200 rpm  
**Torque** ..... 260 lb-ft @ 1400 rpm  
**Transmission** ..... 8-speed automatic  
**Dimensions**  
 • **Wheelbase** ..... 111.6 in  
 • **L/W/H** ..... 184.4/72.8/55.1 in  
 • **Curb Weight** ..... 3686 lb

**Warranty**  
 5 years/60,000 miles bumper to bumper  
 10 years/100,000 miles powertrain  
 7 years/unlimited miles corrosion protection  
 5 years/unlimited miles roadside assistance  
 3 years/36,000 miles scheduled maintenance

**Model-Year Changes**  
**2020:** The Sport trim level receives performance brakes.  
**2021:** Minor trim changes.

## TEST RESULTS

	New	40,000 miles
<b>60 mph</b> .....	5.8 sec	5.4 sec
<b>1/4-Mile</b> .....	14.8 sec @ 94 mph	14.0 sec @ 99 mph
<b>100 mph</b> .....	16.7 sec	14.2 sec
<b>130 mph</b> .....	33.4 sec	28.1 sec
<i>Results above omit 1-ft rollout of 0.3 sec.</i>		
<b>Rolling Start, 5-60 mph</b> .....	7.7 sec	6.8 sec
<b>Braking, 70-0 mph</b> ...	160 ft	160 ft
<b>Roadholding, 300-ft Skidpad</b> .....	0.92 g	0.94 g
<b>Top Speed (C/D est)</b> .....		145 mph
<b>C/D Fuel Economy</b>		
• <b>Observed</b> .....		26 mpg
<b>EPA Fuel Economy</b>		
• <b>Comb/City/Hwy</b> .....		25/22/30 mpg

than the make. That didn't stop us from enjoying the car, though.  
 We spec'd our G70 with the base 252-hp turbocharged 2.0-liter inline-four and the eight-speed automatic gearbox because that's what most people will buy. Genesis offers a six-speed manual, but the turbo four is much more responsive when paired with the slushbox, so we went with livability over ego. The car's initial 60-mph dash of 5.8 seconds isn't that impressive, but slicing 0.4 second off that time during its exit interview is. The G70 was as smooth, quiet, and competent during high-speed cruising as any other entry-level luxury sedan, and it earned 31 mpg in our 75-mph highway fuel-economy test, beating its EPA rating by 1 mpg but falling short of what we achieved with the BMW 330i xDrive (38 mpg) and Audi A4 (33 mpg).





The G70's steering is direct, its chassis tight, and its brake pedal firm. We reveled in its quick turn-in and classic sports-sedan looks, practicality, and fun. And we measured 0.94 g of lateral grip in our skidpad test, which places the G70 on even footing with a rear-drive 330i, the benchmark for performance in this segment.

That was what our head was telling us about the G70. But after the honeymoon ended, our heart began to say something different: While the base engine is fine and we should have been happy with it, we regretted not optioning the 365-hp twin-turbo V-6. We'd already spent 40,000 miles with the six in the mechanically similar Kia Stinger and enjoyed its responsiveness and liveliness.

The malaise was more of an emotional issue than an actionable complaint. We had no real problems with our G70, at least none that were its fault. A low-speed encounter with Michigan's state pest, the white-tailed deer, proved costly. The deer ran away seemingly unharmed, but the impact cracked off a piece of the mesh grille and dislodged an adaptive-cruise-control sensor from the front bumper. Disconcertingly, the car took a few days to register the damage and flash a "radar sensor blocked" warning. Even worse, the warning disappeared, allowing one staffer to engage adaptive cruise as if all were well. The car then failed to brake as it barreled toward a slower vehicle ahead, requiring the driver to step in. The \$4163 fix was relatively simple, but with the G70 still new enough to be rare, we had to wait a couple of weeks while the necessary parts made their way from South Korea to our dealership.

During our loan, we replaced both driver's-side winter tires as they showed evidence of impact damage and later spent \$120 to align the wheels, likely set askew by Michigan's potholes. Also, the rear summer tires were worn out with about 30,000 miles on them, which is to be expected with a sports sedan.

Despite our general enjoyment of the Genesis, during its first year, no one took it farther than Iowa. Normally a logbook with few long-distance trips suggests a staff-wide mutiny, but the G70's lack of travel stories was largely due to summer weekends spent at the dealer and also the pandemic.

After COVID-19 hit, deputy creative director Nathan Schroeder ended up hosting

# A lasting first impression.

## SERVICE

Dealer Visits	
• Scheduled .....	6
• Unscheduled .....	0
Days out of Service .....	28
Unscheduled Oil Additions .....	0 qt
Damage and Destruction .....	\$4800

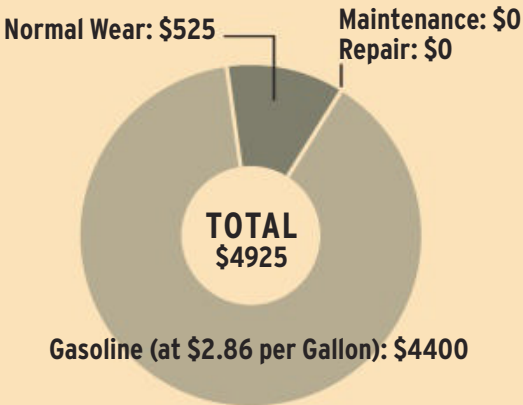
## LIFE EXPECTANCIES

Tires	
• Front .....	60,000 miles
• Rear .....	30,000 miles
Brake Pads	
• Front .....	100,000 miles
• Rear .....	>100,000 miles

## WHAT BITS AND PIECES COST

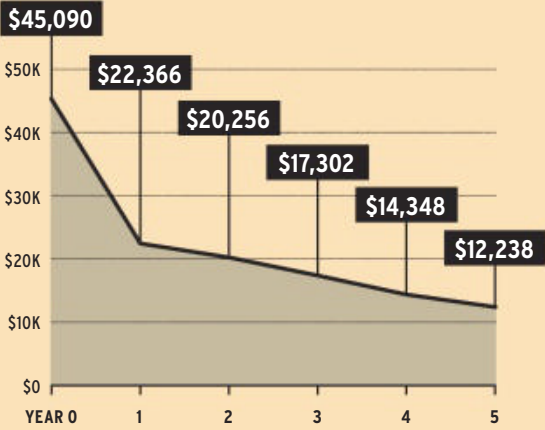
Headlamp .....	\$1702
Engine Air Filter .....	\$31
Oil Filter .....	\$7
Tire, F/R .....	\$273/\$281
Wiper Blade, L/R ...	\$46/\$27
Front Brake Pads .....	\$131

## OPERATING COSTS FOR 40,000 MILES



## FIVE-YEAR DEPRECIATION

Depreciation data from ALG, based on 15,000 miles per year.



## SERVICE TIMELINE

June 25, 2019  
57 miles  
Long-term test begins.

August 22, 2019  
5652 miles  
After we damage the front end in a deer strike, the dealer replaces the grille, sensor cover, cruise-control unit assembly, and other bits. \$4163

September 19, 2019  
6020 miles  
6000-mile service: Dealer performs an oil change and inspections. \$0

November 1, 2019  
10,304 miles  
We swap to Pirelli Winter Sottozero 3 tires. \$1033

November 27, 2019  
11,721 miles  
12,000-mile service: Dealer performs an oil change, inspects the vehicle, and replaces the cabin air filter. \$0

January 31, 2020  
15,485 miles  
We replace a front winter tire due to a sidewall puncture. \$254

February 25, 2020  
16,705 miles  
We replace a rear winter tire after discovering a bubbled sidewall. \$263

March 12, 2020  
17,734 miles  
18,000-mile service: Dealer performs an oil change and inspections. \$0

March 13, 2020  
17,771 miles  
We refit the Michelin Pilot Sport 4 summer tires.

March 17, 2020  
17,906 miles  
Multiple pothole strikes necessitate an alignment. \$120

August 20, 2020  
24,008 miles  
24,000-mile service: Dealer performs an oil change and inspections, rotates the tires, and

replaces the engine and cabin air filters. \$0

September 22, 2020  
32,215 miles  
30,000-mile service: Dealer performs an oil change, tire rotation, and inspections. \$0

October 13, 2020  
34,624 miles  
We replace the worn-out rear tires. \$525

October 30, 2020  
36,304 miles  
We refit the winter tires. \$0

November 5, 2020  
36,875 miles  
36,000-mile service: Dealer performs an oil change and inspections, replaces the cabin air filter, and changes the rear-differential fluid. \$0

December 22, 2020  
40,207 miles  
Long-term test ends.





Genesis's biggest problem with the G70 is the number of people who asked us "What is it?" while admiring the car.

## **Rants** **and** **Raves**

Someone said they liked my Bentley!?

—NATHAN SCHROEDER

The four-cylinder more than gets the job done and will save you money on gas and potential tickets.

—MICHAEL AARON

Kudos to Genesis for building a well-rounded sedan in a world gone utility.

—DAVID BEARD

This is how you do a touchscreen correctly: with lots of large, easy-to-use buttons and knobs.

—ERIC TINGWALL

the G70 from March until July. He used it to run errands (including hauling buckets of gravel for a backyard improvement project) as well as to unwind, taking joy rides after weeks stuck at home. He discovered that this sedan's simple mission and sprightly handling were a perfect reminder of the pleasures of driving a good car on an empty road. He also encountered the only person to admit to us out loud that they thought the G70 was a Bentley.

That confusion was probably due to Genesis's winged emblem, which kind of looks like Bentley's, but there's also something to be said for the G70's cushy interior. It's not Bentley nice (though that could change if the 2022 update borrows anything from Genesis's sybarite-friendly SUV)—this G70 didn't even have a heated steering wheel, which some of our staffers consider a major misstep. But you'd be hard-pressed to find this much quilted leather in anything else that costs \$45,090, and the G70's various gauges and dials all look and feel expensive.

Eventually the pandemic summer renewed our interest in long road trips, and we racked up our last 20,000 miles in six months, traveling to Georgia, Connecticut,

Virginia, Washington State, and all over Michigan. The G70's 11-cubic-foot trunk swallowed an improbable amount of luggage, every passenger was comfortable, and no drivers complained that they should have taken their trip in an SUV.

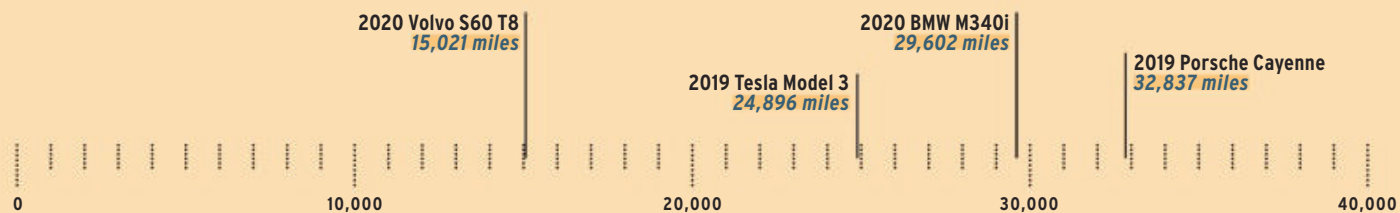
But as the miles packed on, the tenor of the logbook notes slid from excited praise to moderate discontent. Our drivers couldn't let go of the memory of the larger engine. They ruminated on its extra power as well as the accompanying sportier suspension tune, and some even wondered whether the steering had been more engaging, too. A consensus eventually formed: If we were buying a G70, we'd spend the additional 11 grand for the six-cylinder.

This inverse relationship between the miles on the odometer and the staff's interest in and fondness for the G70 is not a unique phenomenon. The G70 isn't as purely athletic as other sports sedans, but its concessions to comfort make it palatable to a wide audience, and its value is undeniable. The G70 was a great buy when we welcomed it under our roof all those months ago, and it's still a smart choice now. But if you decide to order one, get the big engine. 🇺🇸



## Fleet Files

### HERE'S HOW OUR OTHER LONG-TERM VEHICLES ARE FARING IN THEIR 40,000-MILE TRIALS:



#### Honeymoon Phase

### 2020 JEEP GLADIATOR MOJAVE

ARRIVAL: SEPTEMBER 2020

MILES: 7495

OBSERVED MPG: 15

The Jeep Gladiator is equal parts toy and tool, a four-door off-roader with a five-foot-long pickup bed and removable roof panels and doors. Can one vehicle succeed while trying to be so many different things? That's a question best answered with a 40,000-mile long-term test. Adding to our interest, the Mojave trim is the first of Jeep's Desert Rated models, which means it's outfitted for high-speed off-roading, not just crawling. At \$45,370 to start, the Mojave costs the same as the Rubicon and is equipped with a reinforced frame, 33-inch tires, and a beefy suspension with Fox internal-bypass dampers and hydraulic front bump stops. An upgraded infotainment system, leather seats, a removable hard top, and more added \$13,550 to our truck's as-tested price. But even at \$58,920, this is still one of the least expensive Gladiators we've driven.

The traditionalists among us are tickled that we opted for the six-speed manual versus the optional eight-speed automatic, although the stick does limit the Mojave's tow figure to 4500 pounds, down from the auto's 6000. Motivation comes from a 285-hp 3.6-liter gas V-6. (The turbo-diesel is not available in Mojave models.) With an 8.5-second run to 60 mph and a 15-mpg average thus far, our 5175-pound pickup is slow and thirsty. Its steering is vague, its handling is clumsy, and the manual is anything but precise. But the truck rides well for a stick-axle Jeep. And simply operating the Gladiator is a case study in four-wheeled fun, even with its doors and top buttoned up for winter use. The next 30,000-plus miles will provide us with ample opportunities to weigh its unique charms against the compromises they demand. —Mike Sutton



#### Bonding Phase



### 2020 TOYOTA SUPRA

ARRIVAL:

FEBRUARY 2020

MILES: 13,544

OBSERVED MPG: 24

Our Supra is now about one-third of the way through its 40,000-mile stress test, and those miles have done nothing but reaffirm that it's a heroic sports car that's a raucous thrill to drive. What we didn't know going in was whether this joint-venture BMW-Toyota

mobile would live up to the Japanese company's reputation for quality. So far, the answer is yes. We've made only one stop at the dealer for a scheduled oil service. The big surprise, though, is the public reception of the Supra. People follow us into parking lots to get a closer look, passersby stop us to talk about it, and other drivers give us the thumbs up. Hero car indeed. —Rich Ceppos



# WRECKED SHIPS

IN SEPTEMBER 2019, A CARGO SHIP CARRYING 4200 VEHICLES CAPSIZED OFF THE COAST OF GEORGIA. NINETEEN MONTHS LATER, AS THE MASSIVE SALVAGE EFFORT NEARS ITS END, WE FINALLY HAVE AN IDEA OF WHAT WENT WRONG.

~ *By Andrew Lawrence*







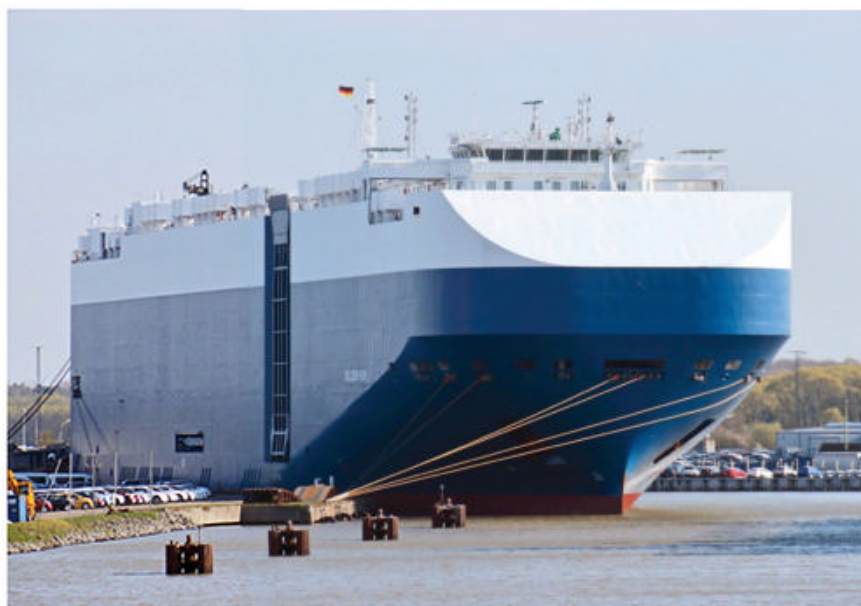


HE BUSY SEASON ON St. Simons Island, Georgia, typically runs from Memorial Day to Labor Day. But 2020's tourist boom lasted

well into November. A short detour off I-95, about halfway between Savannah and Jacksonville, St. Simons Island is known for golf and salt-water-based leisure pursuits. On one clear and breezy late-fall afternoon, people seeking a reprieve from their couches cruised the palm-tree-lined high street on foot or bikes; others sat on benches licking soft serve while staring at the fishing trawlers and cargo ships in the distance. The lower the sun dipped on the horizon, the more people drifted to the pier in pursuit of the perfect sunset snap. And amid all the smiles and poses, no one seemed to mind the giant shipwreck lurking in the background. If anything, they huddled closer together to keep the beached metal whale in frame.

Before it capsized, the MV *Golden Ray* shuttled cars through the auto industry's global supply chain for two years, leading a nondescript existence in the world of modern shipping operations. More than two football fields long and 17 stories tall, this roll-on/roll-off vehicle transporter makes your double-decker pontoon boat look like a bath toy. With its massive 17,335-hp 5522-liter two-stroke diesel inline-seven turning at a relatively lazy (for this magazine, anyway) 77 rpm, the Hyundai Glovis-owned ship plied the seas at a max speed of 20 knots (23 mph).

In September 2019, the *Golden Ray* departed the Port of Brunswick, Georgia, with a haul of about 4200 vehicles and soon developed a catastrophic list. The floating parking garage, with space for up to 7742 vehicles, tipped onto its side and beached itself just off the St. Simons Island shoreline. Nineteen months later, the *Golden Ray*'s journey is finally nearing its end. This is the story, reconstructed from interviews



**Above: The *Golden Ray* in a German port in April 2019. Below: For St. Simons Island, the capsized ship was at first an eyesore, then an attraction.**

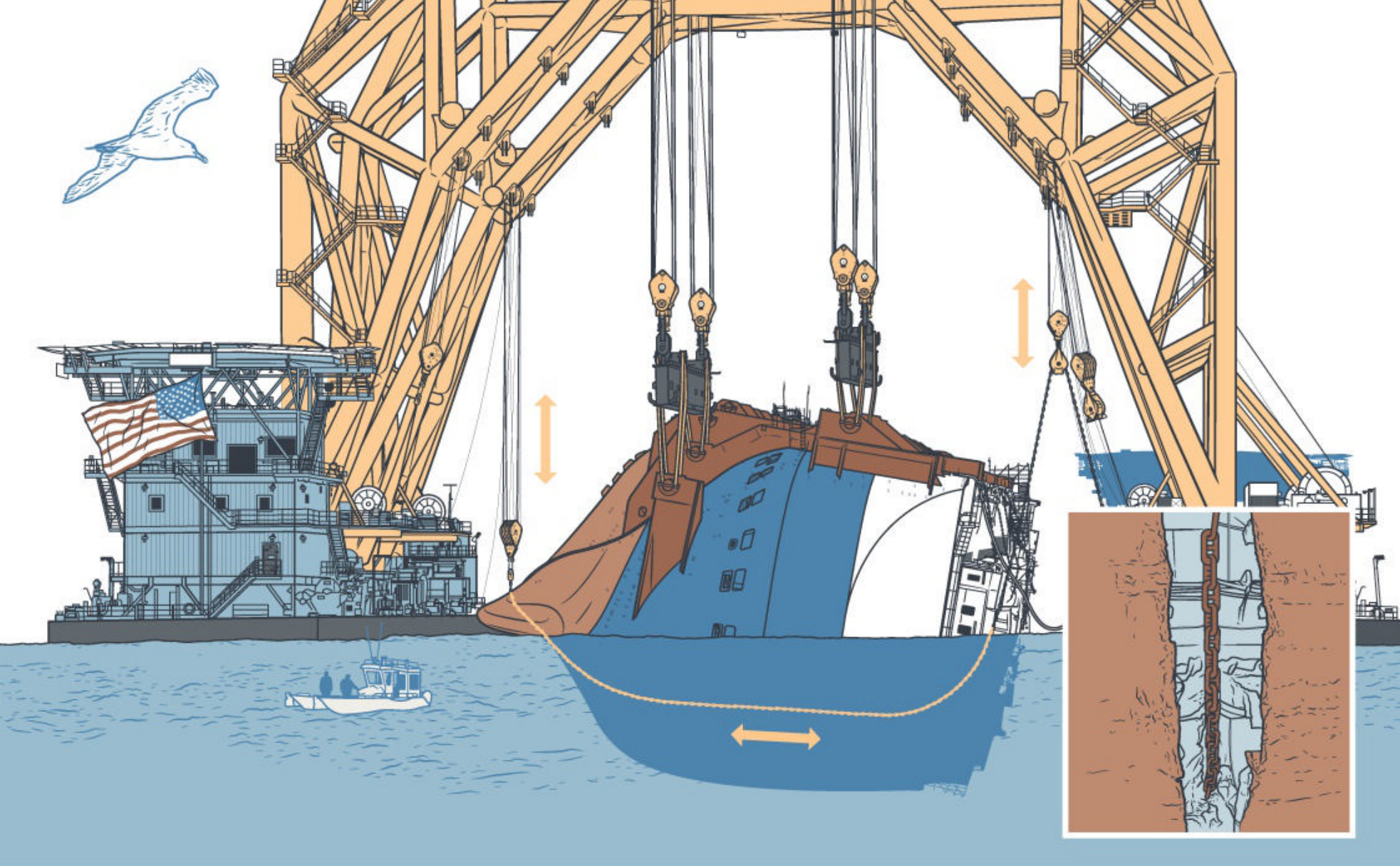


and a multiagency investigative hearing conducted last September, of how a laden ship weighing approximately 38,600 tons lost its balance, became a gapers'-block tourist attraction on the Georgia coast, and launched a salvage effort that makes crushing cars look like child's play.

EVEN WITH HURRICANE DORIAN bearing down on Florida, the *Golden Ray*'s final voyage was poised to be like any other assignment for the 23 Korean and Filipino seafarers serving in the ship's complement. The monthslong itinerary had the ship sailing from the Gulf of Mexico, up the Eastern Seaboard, and on to the Middle East. To avoid the storm, the *Golden Ray* treaded water after leaving Freeport, Texas, to slow its arrival to Brunswick, the nation's sixth-busiest auto port and an essential distribution outlet for the Hyundai factory in Montgomery, Alabama, and the Kia plant in West Point, Georgia.

On September 7, 2019, the *Golden Ray* eased into the harbor, where stevedores off-loaded 285 Hyundai Accents and Kia Fortes from two decks and loaded 339 brand-new Kia Tellurides onto three. Harbor pilot Jonathan Tennant then joined the crew to navigate the boat out of the narrow shipping channel. Around 12:45 a.m. the next day, the *Golden Ray* raised its 275-ton stern ramp, and captain Gi Hak Lee declared it "ready for sea" and the voyage to Baltimore. Flanked by the *Dorothy Moran* tugboat, the *Golden Ray* made for the Atlantic with Tennant giving commands to the quartermaster at its helm. "Our job is very much about feel," he says. "You become in sync with the vessel." It was a still, 72-degree morning—"cupcake conditions," Tennant says. He remembers looking out at the moon, the lighthouse





on St. Simons Island, and the lights on the *Emerald Ace*, an inbound car carrier. Once he felt in control of the vessel, he dismissed his tug so it could assist the *Ace* and pressed on, eventually ordering 10 degrees of starboard rudder to make the fourth turn of the voyage out to sea. But 10 degrees wasn't enough, so Tennant called for the next logical thing: 20 degrees starboard. That's when the ship began to lose it.

It was normal for the *Golden Ray* to lean while making the turn, but this "felt like she was going to spin out of control," says Tennant. Trying to slow the swing, he immediately called for midships (0 degrees), then 20 degrees port, then hard to port. When the ship didn't respond, he turned to Lee and asked, "What is happening?" Lee's reply—"Whoa!"—prompted Tennant to ease off a bit, to 20 degrees port. Suddenly, the ship's stern slid out "like someone kicking a stool out from under you," Tennant recalls. "The lights were gone. All I saw was water." Nevertheless, he kept driving, calling for full lock again, still hoping to right the ship. But unbeknownst to him, the rudder and propeller were already out of the water. Nothing could stop the *Golden Ray* from plowing into the sound.

The crash threw Tennant against the wheelhouse windshield, and he held fast to a gyrocompass to keep from sliding away. Water rushed into the vessel through an open door in the hull. Inside the upended engine room, engineers similarly clung to life in the dark as the seven-cylinder lost power and fires broke out across the disabled ship. With the stern stuck out in deep water, a flotilla of tugs and taxis responding to Tennant's distress calls converged on the capsized carrier to shove it onto a sandbar. The *Golden Ray* risked being dragged to the bottom of the channel, which could have choked off the busy shipping lane and drowned everyone aboard. Tennant is an Eagle Scout who still lives by the preparedness mindset at age 46. As he dangled

**The VB 10,000 heavy-lifting vessel** serves as both saw and crane in the *Golden Ray* salvage operation. It pulls a cutting chain through the ship to slice off a section, which it later picks up by the lugs welded to the side and drops on a barge. Each piece then makes its way to a recycling facility in Louisiana.

50 feet in the air, he thought about the rappelling gear in his work-issued F-250 Super Duty that was parked a half-mile away near the pier.

U.S. Coast Guard teams arrived by air and sea to contain the ship's fires and help Tennant, Lee, and 18 others escape. (True to maritime tradition, the captain refused to abandon ship before all members of his crew were safe, but Tennant convinced Lee he'd have a better chance of saving his men by leaving the vessel. That way, he could share his knowledge of the *Golden Ray*'s access points with the Coast Guard.) Trapped in the bowels of the ship, four engineers stripped down to their underwear and climbed into the floodwaters seeking relief from air temperatures that hit an estimated 150 degrees. They banged on the hull to make their presence known. Nearly 36 hours after the accident, they were rescued through a hole cut in the hull. Tennant shudders to think what the outcome might've been had the ship rolled over at sea. "I don't believe there would've been any witness to it happening," he says. "And the ability to call for help would not have been there. I truly think that I essentially witnessed a miracle."

The 4200 vehicles onboard the *Golden Ray*



were not so lucky. The loading-plan diagram shows that most of them were Ram pickups, GM crossovers, and Mercedes SUVs bound for the Middle East. Officially, the cause of the accident has yet to be determined. But the aforementioned hearing conducted last year by the Coast Guard, the National Transportation Safety Board, and like agencies from South Korea and the Marshall Islands (the *Golden Ray* sailed under the latter's flag) theorized that the ship had been loaded incorrectly.

A Coast Guard forensic analysis zeroed in on the 411 tons of additional weight that the *Golden Ray* took on in Brunswick when it swapped those subcompact cars for SUVs. The ship had also discharged 1645 tons of ballast water en route from Freeport, and combined with an underloaded deck 5, the addition of the Tellurides raised the ship's center of gravity to a dangerous height.

Jeffrey Falzarano, a professor of ocean engineering at Texas A&M, likened the idea of righting a listing car carrier to "trying to balance a pencil on its tip." The hull door should have been closed at that point, and the fact that it was open "simply exacerbated the capsizing," testified Lieutenant Ian Oviatt, who led the Coast Guard study. The full conclusion of the investigation likely won't be reached until fall at the earliest. Hyunjin Park, the officer responsible for vouching for the *Golden Ray*'s stability, declined an invitation to testify at the hearing.

As for the monumental task of scrap-ping the shipwreck, well, it's taking some time. Initially, traffic through the channel slowed for about a month as response teams laid an oil-containment boom around the hull. Next, crews began the lengthy process of siphoning 320,000 gallons of fuel and water from 26 tanks in the *Golden Ray*. Meanwhile, some 6000 tons of one- to three-inch-thick rocks were dumped around the hull to slow erosion from the sea and forthcoming work vessels.

The 50-ton rudder and 100-ton propeller were torched off the carrier first and discarded in an artificial reef alongside M-60 battle tanks about 20 miles southeast of St. Simons Island. Then a salvage crew welded 16 steel girders, each weighing between 35 and 80 tons, to the *Golden Ray*'s starboard side to serve as connection points between the eight ship sections and the 255-foot-tall twin-gantry catamaran that would lift them. Typically deployed to recover offshore oil rigs, the dual-barge *VB 10,000* crane can lift up to 7500 tons at a time and adjust its lifting blocks to account for the shifting weights of the mangled vehicles in each rusted-out slice.

To make the seven cuts, the salvage team threaded a 400-foot string of 80-pound steel rings under the hull and attached it to the *VB*'s lifting pulleys, which worked the chain back and forth to saw through the ship. The cutting began on November 6, 2020—425 days after the ship capsized—and came to a halt just a day later when the line broke. That was one of several setbacks, along with weather- and COVID-related delays, that pushed the recovery effort months



**The *Golden Ray*'s doomed cargo included SUVs and trucks built by Mercedes, GM, Ram, and Kia that were headed to the Middle East.**

beyond the initial estimate. After much sound and fury, on November 28, the first excised section began its barge ride to a Louisiana recycling yard. If work continues apace, the wreckage could be gone by this year's busy season.

Currently, some 400 people and 70 vessels are engaged in the cleanup effort. Their work doesn't come cheap. In a May 2020 disclosure, North P&I Club, the *Golden Ray*'s U.K.-based insurer, expected the accident to run up more than \$400 million in claims, a potential record for the 161-year-old company. Much of that cost comes from measures being taken to protect the environmentally sensitive Golden Isles coastline. (Rod Sullivan, a maritime attorney in Jacksonville, reckons capsizing in the English Channel would've cost a quarter as much.)

For all the financial carnage of the *Golden Ray* disaster, it provided a small windfall for some locals. Business owners on St. Simons Island initially feared the wreckage would discourage tourism. But the ship quickly became an attraction to rival the area's iconic lighthouse and Fort Frederica National Monument. Gawkers have flocked to St. Simons Island to snap selfies with the wreckage from the pier, down *Golden Ray* IPAs, and buy \$15 T-shirts that say "Ship Happens." Tennant takes it all in stride. "Once those men survived, that was a game changer for me," says the pilot. "Now when I see that ship, she's nothing more than a wreck. When I see those T-shirts, I just chuckle and say, 'Yes, ship does happen.'" 🇺🇸

PHOTOGRAPH COURTESY OF ST. SIMONS SOUND INCIDENT RESPONSE



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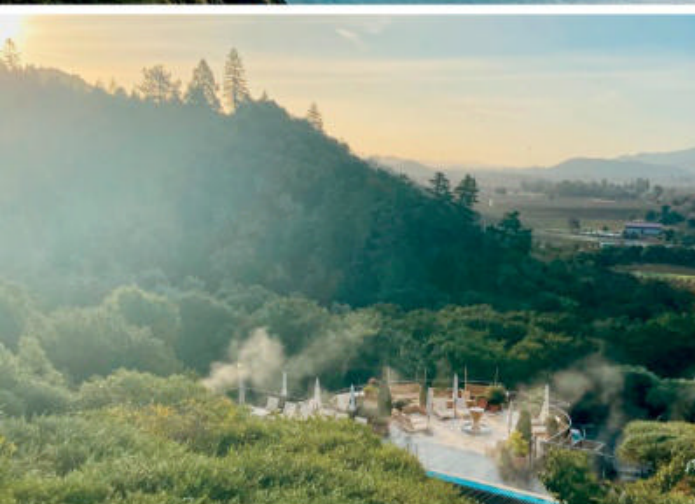
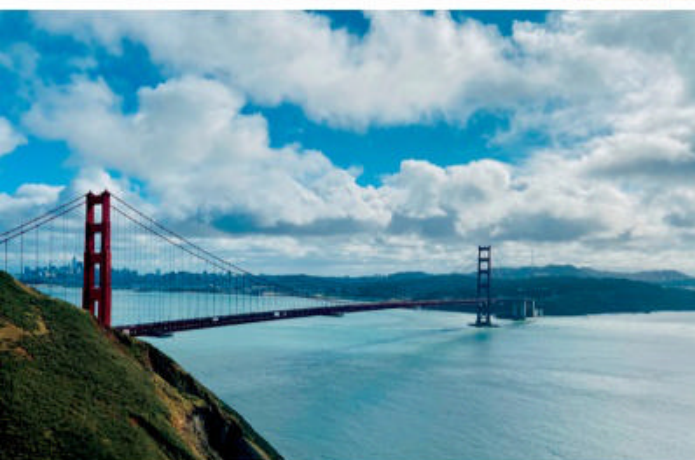
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# THE RUNDOWN

*An expert look at the newest and most important vehicles this month.*



We investigate driving without a windshield, page 74.

2021 BMW M3 ~ BY EZRA DYER

## Drift Analyzer

**With an available six-speed manual or optional all-wheel drive, the M3 has one foot in the past and the other in the future.**

BMW might want to reconfigure the wireless phone charger in the 2021 M3. It has a clasp that holds the phone against the side of the console, and squeezing my iPhone down in there depressed the volume and power buttons simultaneously while I was out on the wet skidpad at the BMW Performance Center in Greer, South Carolina. Which wouldn't be a big deal, except that pushing down those buttons eventually

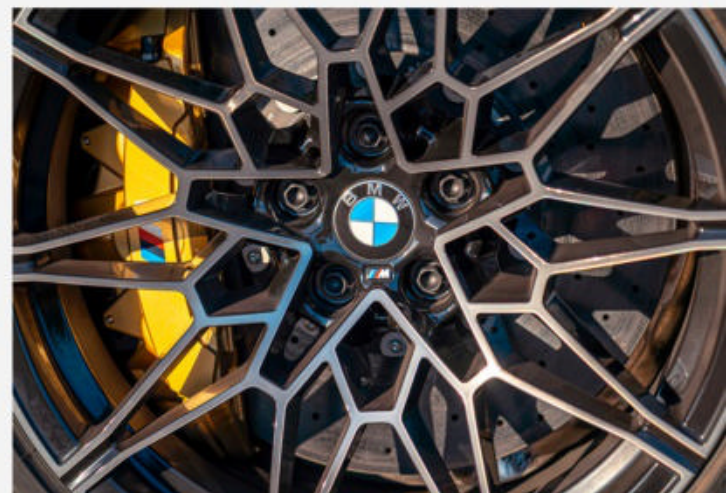
causes an iPhone to dial 911. What's my emergency? Uh, I can't get the M3's M Drift Analyzer to give me five stars, but I'm not sure that qualifies as an emergency.

Neither does the new grille, which isn't great, but looks better on the M3 than the base 4-series primarily because it's blacked out rather than glitzed up in silver. You

know how some artists include a deliberate flaw in their work to remind themselves that only God is perfect? Maybe BMW went that route, too. If you really can't stand the grille and yet must have an M3, there's an easy fix: Skip the good colors—Isle of Man Green, Toronto Red, Frozen Portimao Blue—and buy it in black.







Here are four aesthetically pleasing pictures of the new M3, which might help you forget about what you just saw on the previous page.

The good news is, when you're behind the wheel, you forget all about the XXL twin-kidney action up front. That's because there's an all-time-great inline-six snuggled up against the firewall: BMW's S58 engine is a twin-turbocharged 3.0-liter that makes 473 horsepower and 406 pound-feet of torque in the core M3 model and 503 horsepower and 479 pound-feet in the M3 Competition. But the latter is available only with an eight-speed slushbox, and it's a regular planetary-gear automatic; gone is the dual-clutch from the options sheet. We'd gladly surrender 30 horses and pick the base car, as it comes exclusively with a six-speed manual transmission. For the 2022 model, due later this year, the Competition will be available with all-wheel drive. And just as in the M5, it will include a rear-drive mode to enable smoky, sideways drift shenanigans.

The manual M3 requires no special mode for lurid tail-out antics. In fact, if you spec the M Drive Professional package, it even encourages that brand of behavior with the onboard M Drift Analyzer. The computer tallies the length of your drift (both time and distance) and the wheel angle to assign a score on a five-star

## THE NUMBERS

**Vehicle Type:** front-engine, rear-wheel-drive, 5-passenger, 4-door sedan

**Base** ..... \$70,895-\$73,795

**Engines:** twin-turbocharged and intercooled DOHC 24-valve 3.0-liter inline-6, 473 or 503 hp, 406 or 479 lb-ft

**Transmissions:** 6-speed manual, 8-speed automatic

### Dimensions

• **Wheelbase** ..... 112.5 in

• **L/W/H** ..... 189.1/74.3/56.4 in

• **Curb Weight** ..... 3850-3900 lb

### Performance (C/D est)

• **60 mph** ..... 3.6-4.0 sec

• **100 mph** ..... 8.9-9.2 sec

• **1/4-Mile** ..... 11.3-11.7 sec

• **Top Speed** ..... 155-180 mph

### EPA Fuel Economy

• **Comb/City/Hwy** ..... 19/16/23 mpg

scale. Considering what you have to do to earn five stars, this feature may as well be called the S58 Donor Car Generator. Fortunately, the optional carbon-ceramic brakes are so strong that the pulses of the ABS lay down a Morse code of Michelin in the braking zones. Beware: Hard stops heading east might spin the earth a little faster and thereby shorten your track day.

With this much grip at your disposal, breaking the M3's tires loose on dry pavement requires deliberate foolish-



ness. There's usually no reason to disable the stability control, given that with the M Drive Professional pack it has 10 settings, the most permissive of which is like a bungee jump that brings your nose three inches from the floor of the ravine. On the base car, the six-speed offers rev matching for downshifts, if you like, and its throws are classic BMW. The north-south shifts are relatively short, but the 2-3 requires a shuttle-bus transfer to the next gate. It's still great fun, and you should get it.

You'd think that an engine making 158.0 horsepower per liter (or 168.1 in the M3 Competition) would have the power delivery of a hand grenade, but the S58 is smooth and flexible, happily crushing your shoulders into the seat at nearly any rpm. In the core model, peak torque hits at 2650 rpm and doesn't tail off until 6130 rpm, which translates as ferocious acceleration basically anytime you want it. We expect the M3 Comp to hit 60 mph in 3.6 seconds and the base car to get that job done in about four.

Dimensional inflation being what it is, the new M3 is bigger than the last, especially in length, where it gains 4.6 inches. If you're trying to envision what it looks like sizewise, the 2021 M3 is slightly longer and wider than a 21-year-old E39 M5. It still feels compact, affirming that this is the perfect size for a sports sedan, whether badged as a 3- or 5-series. Perhaps G80—the BMW model code for this generation of the M3—will someday carry the same cachet as E39. Or maybe it'll just confuse Genesis owners.

Starting at \$70,895, the M3 is not cheap, but nonetheless represents good value for a car that can handle family-hauler chores Monday through Friday and hound Ferraris at track days on the weekend.

As for that front end, perhaps this will be like Audi's Singleframe grille, where we get used to it—or like the Acura beak grille, where we don't. Either way, let us rejoice that there's a new manual-transmission BMW M3. Because there probably won't be many more times we get to say that.

# HANG IN THERE

Taglines work. Take, for example, the incredible motivational power of a "Hang in There" cat poster, or the decades that BMW marketed itself as "The Ultimate Driving Machine." In those days, its cars regularly delivered class-leading handling and fun. In 2006, BMW dropped the tagline and began a slow move away from cars that sing and dance. But the company still has a few, such as the M2 CS, that are hanging in there, clinging to the branches of the old family tree.

The CS is a limited-edition high-powered version of the M2, which is itself the hot version of the 2-series coupe. We're talking the rear-drive 2-series, not the front-drive-based, four-door 2-series Gran Coupe abomination that placed last in a comparison test. Thankfully, the M2 CS has nothing in common with that car.

It does, however, share some parts with the outgoing Competition-spec M3 and M4, including the 444-hp twin-turbo 3.0-liter inline-six. Despite being 39 horses up on the M2 Competition, the CS isn't any quicker than its sibling at low speeds. But it passes through the quarter in 12.1 seconds at 120 mph, two-tenths quicker than the stick-shift M2 Comp.

The CS on a mountain road is a happy place. The six-speed manual pulls us in with the positive, if slightly rubbery, motion of BMWs past. Adaptive dampers are available for the first time on the M2, and the Comfort setting works brilliantly in the canyons. Notching up to the harsher modes only makes the ride punishing.

Matte-gold wheels shod with Michelin Pilot Sport Cup 2 track rubber are an optional but key part of the CS makeover. A test-equipment snafu cost us our skidpad measurement, but this car sticks, we promise. The grippy tires probably deserve some credit for removing a lot of numbness from the steering. While you can't quite read the Braille of the pavement through the Alcantara-wrapped wheel, the steering feedback is livelier than we've seen from recent Bimmers.

Our main problem with this excellent car is its \$84,595 base price. Track-focused Camaros and Mustangs offer more power and the same connected driving experience, but the M2 is smaller and lighter. It's also one of the last true BMWs. We just hope the engineers responsible have a particular cat poster in their offices.

## THE NUMBERS

**Vehicle Type:** front-engine, rear-wheel-drive, 4-passenger, 2-door coupe  
**Base** ..... \$84,595  
**As Tested** ..... \$93,095  
**Engine:** twin-turbocharged and intercooled DOHC 24-valve inline-6, aluminum block and head, direct fuel injection  
**Displacement** ..... 182 in<sup>3</sup>, 2979 cm<sup>3</sup>  
**Power** ..... 444 hp @ 6250 rpm  
**Torque** ..... 406 lb-ft @ 2350 rpm  
**Transmission:** 6-speed manual  
**Dimensions**  
• **Wheelbase** ..... 106.0 in  
• **L/W/H** ..... 175.6/73.7/55.7 in  
• **Curb Weight** ..... 3489 lb

## TEST RESULTS

**60 mph** ..... 3.9 sec  
**100 mph** ..... 8.5 sec  
**1/4-Mile** ..... 12.1 sec @ 120 mph  
**130 mph** ..... 14.3 sec  
**150 mph** ..... 20.8 sec  
*Results above omit 1-ft rollout of 0.3 sec.*  
**Rolling Start, 5-60 mph** .... 4.7 sec  
**Top Speed (mfr's claim)** ... 174 mph  
**Braking, 70-0 mph** ..... 145 ft  
**Braking, 100-0 mph** ..... 301 ft  
**EPA Fuel Economy**  
• **Comb/City/Hwy** ..... 20/17/24 mpg





# Family Values

The refocused MDX gets bigger and more agile.

Acura's driver-focused brand reboot started a few months ago with the new TLX sports sedan, but to be successful in today's market, the carmaker's emphasis on performance and handling also has to work on a hulking three-row SUV. Fortunately for the fourth-gen MDX—whose predecessor outsold the TLX by roughly two to one—it does.

The redesigned model's athleticism is surprising, considering it's longer, wider, and taller than before and likely 300 pounds heavier. A new, stiffer platform and control-arm front suspension help refine the MDX's manners and sharpen its handling. With direct but not overly

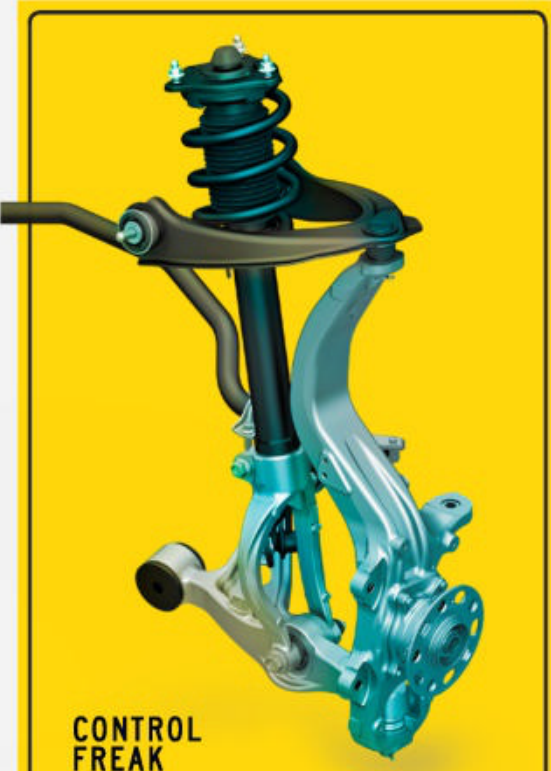


quick steering, this Acura provides a reassuringly positive feel from its front end when turning into corners. A revised multilink rear suspension and adaptive dampers add to its newfound composure. If you go with all-wheel drive, you'll benefit from a torque-vectoring rear differential that can help stabilize and steer the tail. The optional 20-inch wheels make for a ride that's stiff but never harsh. While the MDX's road isolation is not as comprehensive as that of, say, an Audi Q7 or a Volvo XC90, this seven-seater's agility is unexpected.

Up in the front, Acura's familiar transverse-mounted 3.5-liter V-6 is good for 290 horses and hooks to an automatic transaxle with 10 speeds, one gear more than before. Shifts are smooth and well coordinated, and we expect the run to 60 mph will take about six seconds.

Inside, drivers will appreciate the bolstered sport seats and small-diameter, thick-rimmed steering wheel. Despite updates, Acura's touchpad interface continues to stymie users and is no replacement for a well-executed touchscreen or control knob. Aluminum accents and open-pore wood give the MDX's cabin a rich, modern feel that's commensurate with class standards and the \$61,675 cost of the top Advance SH-AWD model we drove. Prices start at \$47,925, a \$2400 increase over the outgoing model.

In the MDX's second row, comfort levels are high, although six-footers may wish for a bit more legroom when front-seat occupants



**CONTROL FREAK**

Following in the tire tracks of the new Acura TLX, the MDX switches from a strut front suspension to an unequal-length control-arm configuration. The new setup improves handling by maintaining a more consistent tire contact patch. Control arms eliminate the strut's positive camber gain, which causes the top of the tire to tilt outward during compression. Also, carefully designed control-arm geometry is more resistant to nosedive under braking. —David Beard

## THE NUMBERS

**Vehicle Type:** front-engine, front- or all-wheel-drive, 7-passenger, 4-door wagon

**Base** ..... **\$47,925-\$49,925**

**Engine:** SOHC 24-valve V-6, aluminum block and heads, direct fuel injection

**Displacement** ..... 212 in<sup>3</sup>, 3471 cm<sup>3</sup>

**Power** ..... 290 hp @ 6200 rpm

**Torque** ..... 267 lb-ft @ 4700 rpm

**Transmission:** 10-speed automatic

### Dimensions

• **Wheelbase** ..... 113.8 in

• **L/W/H** ..... 198.4/78.7/67.1 in

• **Curb Weight** ..... 4250-4550 lb

### Performance (C/D est)

• **60 mph** ..... 6.1-6.3 sec

• **1/4-Mile** ..... 14.8-15.0 sec

• **Top Speed** ..... 115 mph

### EPA Fuel Economy

• **Comb/City/Hwy** ..... 21-22/19/25-26 mpg

aren't feeling generous. Acura made the middle seat removable to provide easy access to the wayback, where riders benefit from a more spacious third row that sits higher off the floor. Adults won't want to sit back there for long, though. On the utility front, the MDX can tow up to 5000 pounds, and its cargo hold swallows 16 cubic feet of stuff behind the third row, 39 with the third row folded, and 71 with both rows folded.

As it did with the TLX, Acura will offer a Type S performance variant of this SUV. That model will make things more interesting with a new 355-hp turbocharged 3.0-liter V-6 and larger brakes, wheels, and tires. But even in standard 290-hp form, the MDX reinforces Acura's new direction via its heightened connection to the road.





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2021 McLaren ELVA  
~ BY BASEM WASEF

# Out There

No windshield, no problem.

When your lineup is full of seemingly identical supercars, one way to elicit a wow is to build something so outside the carbon-fiber box that it can't be confused with anything else. The Elva is that something. This outlier—whose name is a play on *elle va*, French for “she goes”—is an 804-hp hat tip to McLaren's open-cockpit racers that dominated the Can-Am series through the 1960s and helped establish the brand. The Elva's lightweight skin is stretched like taffy around a modified version of McLaren's Monocell II tub, and its front clip completely lacks panel joints. This excessive contouring helped McLaren keep the weight down to an estimated 2950 pounds, which makes the Elva about 100 pounds lighter than a Senna.

Drop inside, yank down the eerily light dihedral door (complete with a soft-close function), and you're enveloped by the car. The exterior color pours over the curved door panels into the unadorned cockpit and makes you feel like you've time-traveled to the Pininfarina stand at the 1969 Turin auto show. Then you look around and see . . . everything, a view uninterrupted by wiper-blade streaks, bug-smudged glass, or sightline-blocking A-pillars. It's a revelation.

At idle, the 804-hp Senna-derived twin-turbo 4.0-liter V-8 shouts expletives—seemingly right in your ear—through an Inconel and titanium exhaust. It's lovely, but the lack of a windshield means you also hear the whine from the electrohydraulic power-steering pump mounted up front.

Streams of tears and snot prove that an open-face helmet and aviators are not enough protection from the wind, even at city speeds. Press a button and, above 28 mph, the Active Air Management System will deploy a 5.9-inch-high windscreen from the nose. We wouldn't characterize the resulting wind reduction as a “bubble of calm,” as McLaren does, but the screen does keep the driver's head from buffeting against the seatback at speed.

Judged by the steering feedback, the lively throttle response, and the progressive grab of the brakes, the Elva experience is like that of any modern McLaren. In corners, the car feels agile and light, yet stable. You can select how much yaw to

## THE NUMBERS

**Vehicle Type:** mid-engine, rear-wheel-drive, 2-passenger, 2-door roadster

**Base** ..... \$1,695,000

**Engine:** twin-turbocharged and intercooled DOHC 32-valve V-8, aluminum block and heads, port fuel injection

**Displacement** .... 244 in<sup>3</sup>, 3994 cm<sup>3</sup>

**Power** ..... 804 hp @ 7500 rpm

**Torque** ..... 590 lb-ft @ 5500 rpm

**Transmission:** 7-speed dual-clutch automatic

### Dimensions

• **Wheelbase** ..... 105.1 in

• **L/W/H** ..... 181.5/76.5/42.8 in

• **Curb Weight** ..... 2950 lb

### Performance (C/D est)

• **60 mph** ..... 2.6 sec

• **100 mph** ..... 4.9 sec

• **1/4-Mile** ..... 9.9 sec

• **Top Speed** ..... 203 mph

### EPA Fuel Economy

• **Comb/City/Hwy** ..... 18/15/21 mpg

allow via McLaren's Variable Drift Control (VDC) settings. The Pirelli P Zero Corsa tires do a decent job of hooking up, but VDC will quash tire-smoking torque, making it possible to floor the accelerator out of corners without upsetting the tail.

McLaren says the Elva hits 60 in under three seconds and beats the Senna to 124 mph, achieving that speed in a mere 6.7 seconds before topping out at what must be a brutal 203 mph. A Porsche 911 Turbo S cabriolet posts similar numbers at a fraction of the Elva's price and won't feed you insects, but the fortunate 149 buyers of this McLaren likely aren't cross-shopping six-figure Porsches; this roadster is less automobile than kinetic art. The Elva faces McLaren's uncertain future with abandon—it is brave, involving, unusual, deceptively simple, and a breath of fresh, bug-filled air.



## WINDBREAKER

The windshield-less Elva isn't legal in 19 states. So McLaren will offer buyers the option to trade the Active Air Management System for a windshield, a rearview mirror, wipers, and a small weight penalty.



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# Fresh Prince

**Highs:** Strong performance, terrific value, looks and feels unique. **Lows:** Gritty engine noise and vibrations, middling fuel economy.



Standing out is difficult in a world where feverish competition, obsessive benchmarking, and feature-by-feature matching have led to largely homogeneous vehicle segments. What's most striking about the Genesis GV80 is that it manages to look and feel fresh.

The fledgling luxury brand's first SUV shows off plenty of original thinking in a segment where following the herd is the norm. The GV80's exterior is elegant, swoopy, and swept back in a way that sets it apart from the two-box blocks that dominate the suburbs. And the handsome shape and proportions don't come at the expense of practicality—the spacious GV80 has one of the largest cargo holds in its class.

Genesis offers gutsy interior color combinations, too, like blue over tan, although our test vehicle arrived with a black and dark-wood cabin. The quilted-leather seats not only look gorgeous but help you feel good by automatically making small adjustments to fend off fatigue.

In base models, there's a 300-hp turbocharged 2.5-liter inline-four under the long hood. While a four-banger seems like it won't stand a chance against 4814 pounds of SUV, the GV80 runs to 60 in a fleet 6.1 seconds, beating the four-cylinder Benz GLE350.

The potent four's time isn't too far behind the available twin-turbo V-6's 5.3-second dash to 60, but the smaller engine can't match the six's refinement. At full throttle,

## THE NUMBERS

**Vehicle Type:** front-engine, all-wheel-drive, 5-passenger, 4-door wagon  
**Base/As Tested ..... \$55,675/\$64,825**  
**Engine:** turbocharged and intercooled DOHC 16-valve inline-4, aluminum block and head, port and direct fuel injection  
**Displacement** ..... 152 in<sup>3</sup>, 2497 cm<sup>3</sup>  
**Power** ..... 300 hp @ 5800 rpm  
**Torque** ..... 311 lb-ft @ 1650 rpm  
**Transmission:** 8-speed automatic  
**Dimensions**  
• **Wheelbase** ..... 116.3 in  
• **L/W/H** ..... 194.7/77.8/67.5 in  
• **Curb Weight** ..... 4814 lb

## TEST RESULTS

**60 mph** ..... 6.1 sec  
**1/4-Mile** ..... 14.6 sec @ 96 mph  
**100 mph** ..... 16.0 sec  
**130 mph** ..... 34.3 sec  
*Results above omit 1-ft rollout of 0.3 sec.*  
**Rolling Start, 5-60 mph** ..... 7.0 sec  
**Top Speed (C/D est)** ..... 140 mph  
**Braking, 70-0 mph** ..... 163 ft  
**Roadholding, 300-ft Skidpad** ..... 0.86 g  
**C/D Fuel Economy**  
• **Observed** ..... 16 mpg  
• **75-mph Hwy Driving** ..... 25 mpg  
• **Hwy Range** ..... 520 mi  
**EPA Fuel Economy**  
• **Comb/City/Hwy** ..... 22/21/25 mpg

this GV80 makes 74 decibels' worth of grainy sounds, and bad vibes buzz up through the steering wheel when the trans decides to lug the engine at 1500 rpm. The four's auto-shutdown routine is rough enough to call attention to itself, too.

Balanced and athletic, the GV80 will play, but it's not overly sporty. Driving it aggressively is kind of fun, but this ute seems a bit too serious for shenanigans. Opting for the handsome 22-inch wheels exacts a small ride-quality penalty. At highway speeds, they're slightly louder than the 20s on the last V-6 model we tested, but skidpad and braking numbers improve on the larger set.

Despite the GV80's segment-leading interior and strong performance, Genesis hasn't abandoned the value part of its identity. Entry-level 2.5T models start at \$49,925; adding all-wheel drive tacks on a hefty \$5750 and brings additional features. We wish the 3.5T's optional third row were available in the 2.5T, but our otherwise well-equipped car stickered at \$64,825, thousands less

than a base Porsche Cayenne or a loaded GV80 3.5T.

Whether the GV80 has a twin-turbo V-6 or a turbo four, it remains a standout worthy of our 10Best award, even before you consider the price. The 2.5T sacrifices some refinement and acceleration at the accountant's altar, but its design, fit and finish, and charm-school manners make it a highly desirable machine in its own right. ■

## 76 THE RUNDOWN

PHOTOGRAPH BY MICHAEL SIMARI ~ APRIL 2021 ~ CAR AND DRIVER

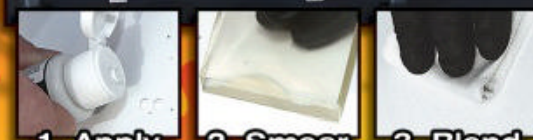
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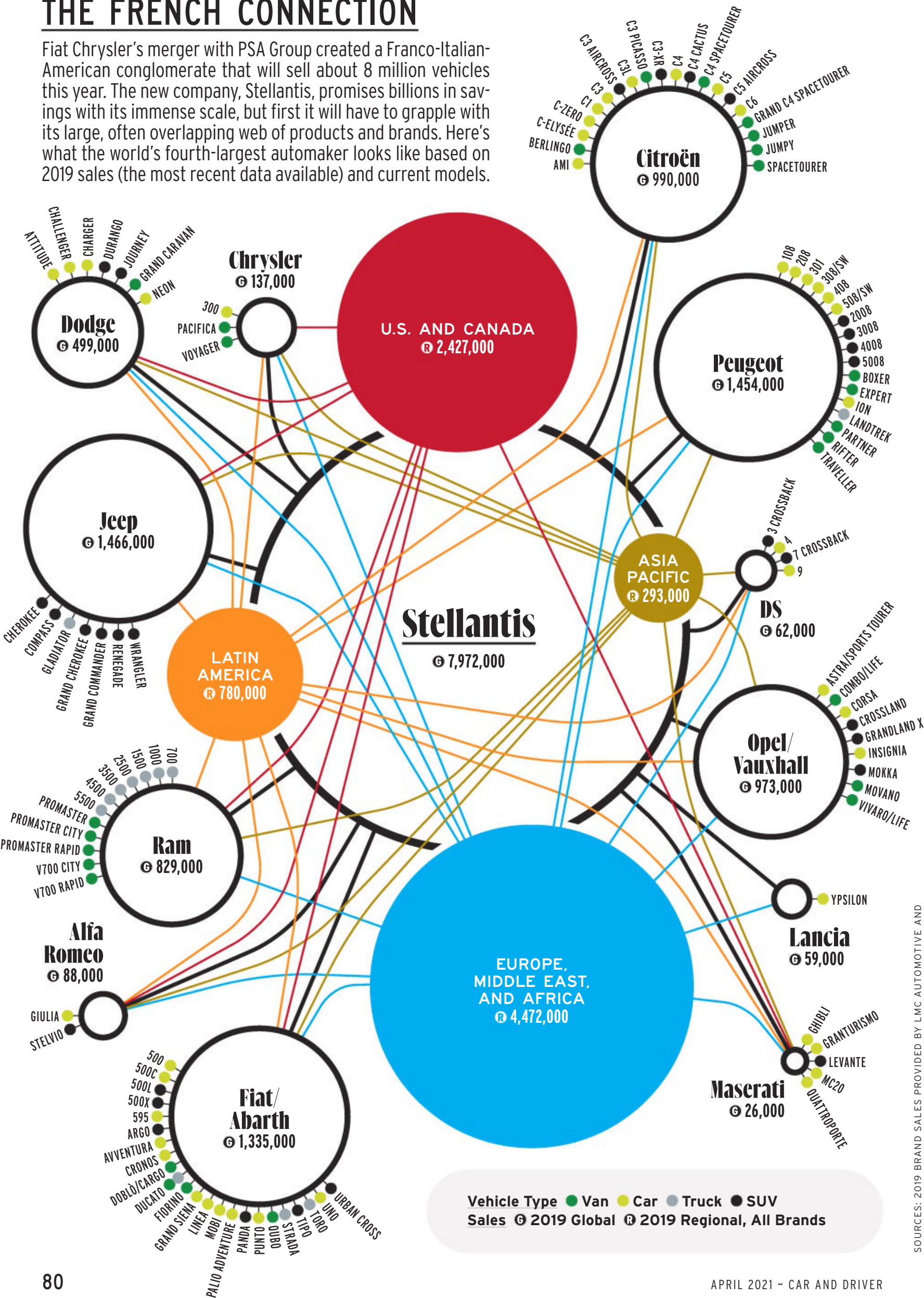
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# THE FRENCH CONNECTION

Fiat Chrysler's merger with PSA Group created a Franco-Italian-American conglomerate that will sell about 8 million vehicles this year. The new company, Stellantis, promises billions in savings with its immense scale, but first it will have to grapple with its large, often overlapping web of products and brands. Here's what the world's fourth-largest automaker looks like based on 2019 sales (the most recent data available) and current models.



SOURCES: 2019 BRAND SALES PROVIDED BY LMC AUTOMOTIVE AND STELLANTIS, 2019 REGIONAL SALES PROVIDED BY STELLANTIS.





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